ABSTRACT. Despite the known advantages of active learning, many librarians still favor lecture-style instruction that doesn’t engage students in classroom learning activities. This method draws on principles of problem-based learning (PBL) to provide a simple, reusable, and scalable plan for teaching activity-based library research classes in a way that saves librarians time and increases student involvement. doi:10.1300/J106v13n03_04 [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <http://www.HaworthPress.com> © 2006 by The Haworth Press, Inc. All rights reserved.]

KEYWORDS. Active learning, problem-based learning, library instruction, class design
Despite all that we know about the importance of encouraging active learning (Allen 1995; Keyser 1999; Association of College and Research Libraries 2000; Macklin 2001), many librarians still favor lecture-style library research sessions. There are many reasons for this. Some librarians may have learned exclusively from lectures themselves, and may not have given much thought to other teaching styles; other librarians may not have the time to rework their lesson plans; still others may fear a loss of control or focus in a class designed to focus on students’ questions and comments. But as universities and other institutions evolve to give students more autonomy, flexibility, and seamless access to tools and resources, libraries must evolve too. Librarians must create simple, flexible, and scalable lesson plans that take into account our students’ immediate research needs, and that give them an active role in tackling the real work of research.

One way to do this is to approach the class not as a presentation of information (with the librarian as “expert source” lecturing to the students), but as an active, co-operative research session, mimicking the actual research that students will do for their class. Problem-Based Learning (PBL), a pedagogical technique developed in medicine but later expanded to serve other fields, offers some useful strategies for such an approach. PBL mimics the activities of real-life practitioners in a field by requiring students to work in groups to develop solutions for complex, open-ended research questions. The approach encourages students’ intellectual independence and engagement, and provides more opportunities for active learning than the traditional lecture format (Albanese and Mitchell 1993; Gallagher 1997; Kanter 1998). The application of PBL to library instruction has been widely explored, both in relation to the traditional fifty-minute library session (Carder, Willingham, and Bibb 2001; Macklin 2001, 2002) and to newer activities such as advising PBL groups (Ohles 1997). While true PBL can be difficult to integrate into traditional library sessions (Enger et al. 2002), a modified PBL approach including group work, hands-on problem solving, and simulation of real-life practice can be used to good advantage in any library classroom.

The following class design was developed initially to serve approximately 20 incoming graduate students in the Department of English at the University of Oregon. However, it has been subsequently modified to serve large and small classes of undergraduates researching a wide variety of topics.
METHOD

Preparation

In order to develop a relevant library instruction session, the librarian must acquire the course syllabus and a copy of the students’ research assignment in advance, usually from the faculty member teaching the course. See Appendix 1 for an example of a research assignment—in this case, one facing incoming graduate students in English literature. The librarian reviews the course materials to become familiar with the content of the course—specifically, what readings will be done, and which topics and themes will be addressed. The librarian then makes a list of the discrete research challenges that the students will face while completing their assignment. See Appendix 2 for a list of tasks that students will face in completing the sample research assignment.

Depending on the time constraints of the library class and the needs of the students, this list can be longer or shorter, and the challenges involved may be more or less granularized (i.e., keyword searching versus subject searching, or understanding LC subject headings well enough to predict their structure, versus simply clicking on a heading to find more related works). Essentially, however, the librarian tries to anticipate the difficulties that students will face in finding library materials, and to articulate each of them in the form of the task students will need to perform.

The librarian then pairs this list with the course materials provided by the professor to create a roster of tasks that addresses each challenge in a way that is directly relevant to the class. In other words, the librarian creates a list of tasks for the students that mimic the actual research they will perform in the class, using examples drawn from their syllabus and research assignment. See Appendix 3 for an example of such a task list. From the librarian’s point of view, the task roster is clearly composed in such a way as to lead students methodically toward the challenges they will face in doing research. The librarian may choose to share this information with the students, or may simply allow them to tackle the tasks without explaining the rationale behind them.

Class Delivery

In the library class, the librarian introduces the class and explains its relationship to the students’ research assignment. In most classes, it will also be helpful to show students the library’s website and the location of the catalog and article databases. The librarian then puts the students in
small groups or pairs and assigns each group a task from the list. Without lecturing or offering extensive commentary, s/he asks the students to do the best they can with their tasks and then circulates through the classroom while they work. This is a natural, organic way to break down the traditional physical structure of the classroom, with the librarian stationed at the front and the students confined to passive roles in their desks. In this format, the students discuss the tasks and their proposed strategies together, while the librarian can hover, observing and commenting without feeling obtrusive.

After the students have worked on their questions for several minutes, the librarian reconvenes the class as a whole and asks each group or pair of students to share their approach to their task. Using the computer and projector, the librarian demonstrates for the class whatever the students suggested. In many cases, this will not be the most efficient or productive approach, which often leads other students to make their own suggestions for improvement. The librarian acts as guide and mentor, offering commentary, advice, and suggestions. The students are told to use their task roster to make their own notes about the processes and strategies they consider important and useful. In effect, students create their own handouts, by making notes throughout the class.

**Outcome**

Classes taught using the modified problem-based approach tended to generate far more student participation and engagement than traditional lectures. This was not surprising. In fact, it was an anticipated outcome of the approach, based on the literature of problem-based learning (Albanese and Mitchell 1993; Kanter 1998). Students spoke more to each other and to the librarian, asked more questions, posited more theories about how to find materials, and expressed satisfaction and understanding more frequently. The co-operative, group-based aspect of the method required students to share strategies and evaluate one another’s approaches to the tasks. This often resulted in surprisingly astute observations and insights, which helped improve the overall quality of the class. Keyser (1999) describes the benefits of co-operative learning as increased student responsibility for learning, improved student retention, and increased student engagement with the information at hand. All these benefits seemed conferred by the modified problem-based approach—although it is admittedly possible that students who fail to take responsibility for their own learning may fall behind.
Teaching faculty too expressed appreciation for the direct relevance of the classes to their course content, and in several instances participated in the classes as part of a student group. From the librarian’s point of view, the classes were less arduous to prepare and deliver than traditional lectures accompanied by handouts, and were more enjoyable to conduct. Planning instruction sessions became simply a matter of consulting professors’ basic course materials and developing a task roster. The librarian also gained a clearer picture of student research skill levels, which helped to shape later iterations of the class.

Frantz (2002) notes that scenario-based learning approaches have the disadvantage of “teaching to the test,” that is, of emphasizing practical skill sets over conceptual understanding. Hmelo (1997) also points out that since problem-based learning scenarios take up more class time than traditional lecture, subsequent reflection and discussion may get short shrift. However, modifying PBL to set less complex, more directed tasks for the students tends to keep the class focused and properly paced. The librarian must plan the class carefully to set tasks that are challenging and relevant, but not so difficult as to frustrate students completely. Having the student groups share their strategies with the whole class exposes everyone to a variety of tasks and solutions, and keeps students’ attention.

The literature of PBL indicates that its methods usually result in greater student comprehension and retention—as well as greater student enjoyment of the learning process—but an empirical study of this modified PBL approach in a library setting remains to be done. Informal feedback from students and professors involved in these classes has been positive, and the librarian’s experience of teaching modified PBL has been that it offers considerably more rewards than traditional lecture, for everyone involved.

REFERENCES


doi:10.1300/J106v13n03_04
APPENDIX 1. Sample Student Research Assignment

English 690: Introduction to Graduate Studies in English Scholarly
Electronic Research Practicum

Find, describe, and review one of each of these types of electronic
sources:

1. At least two scholarly journal articles that you found through the
library’s electronic databases, such as Academic Search Premier or
MLAIB.

2. At least one journal article or book chapter that you found inde-
dendent of the library website. (You may wish to search Amazon.com
or university press sites for new books, or use Google Scholar, or James
Harner’s Literary Research Guide.)

3. A primary literary or historical source that you accessed on the In-
ternet. For early modern topics, EEBO (Early English Books Online) is
an excellent choice. For Poe, Melville, or other nineteenth-century topics,
APS (American Periodicals Series) or Nineteenth-Century Masterfile are
excellent resources, as is the Library of Congress American Memory
website.

4. A website created by a literary scholar, English teacher or profes-
sor, independent of sponsorship by any library or journal. Course sites
for these instructors’ classes are appropriate. Voice of the Shuttle, a
website hosted by UC Santa Barbara, is a good place to start.

5. A website created by a non-academic. An amateur fanzine is possi-
bile, or possibly a site connected with a place or institution that bears
upon your topic, such as a local historical site.

6. At least one illustration or visual aid, which may come from one of
the five above.

For each of these sources, explain:

1. How you found it. What keywords or terms did you search for?
Which library database did you use? Which search engine? How long or
difficult was the search? Did you follow a number of links? Review 50
hits on Google? Or did you find it quickly and easily?

2. How you could evaluate or verify the source. This is mainly a con-
cern for items four through six. How do you know that the author/creator
of the site is of the required status?
Proposed topics:

- Shakespeare’s plays and contemporary events in Ireland.
- Keats’s “This Living Hand” fragment and its authenticity.
- The translations of Poe by Baudelaire, or Poe’s influence on French poets after Baudelaire.
- Melville’s attitudes toward slavery and the abolitionist debates in the mid-nineteenth century.
- S. Weir Mitchell, his theory of the “rest cure” and Gilman’s connections with him.
- The debate over which Greek urn might have been Keats’s model for the poem.
- Critical reviews and analyses of Greenaway’s film *Prospero’s Books*.
- George Lamming’s, Aimé Cesaire’s, or other Caribbean re-writings of *The Tempest*.

You are free to generate your own topic. It should be related to our five case study texts or their authors, and narrow enough to make the search for relevant material challenging. The result should be either a five-page printed paper, or a Web page of similar length.

Note: The assignment has been edited for brevity.

APPENDIX 2. Librarian’s List of Research Tasks Students Must Complete
(Based on Appendix 1.)

1. Keyword searching in article databases.
2. Determining whether articles are peer reviewed.
3. Finding an online, full-text, scholarly article from the free Web.
4. Searching in EEBO.
5. Searching in APS.
7. Google image search.

Note: This list is abbreviated; a longer list could include more variations on tasks, such as image searching specifically within EEBO, or distinctions between different kinds of searching in online databases.
APPENDIX 3. Librarian’s Task Roster for Students

1. Find articles on Edgar Allen Poe and decadence in MLAIB.
3. Using Google Scholar, find a full-text online article from a scholarly journal concerning Keats’s poem, “This Living Hand.”
4. Using EEBO, find documents that have to do with Irish rebellion and paganism.
5. Using APS, find articles written by S. Weir Mitchell about the “rest cure.”
6. Find a website devoted to Herman Melville, hosted by either a university or a college.
7. Using the free Internet, find at least three images of Greek urns purported to be Keats’s inspiration.

Note: This task roster constitutes the only handout for the class. Space is left beneath each task listed, for students to write their own comments about strategies and solutions.