
An Integrated Approach to Teaching Research in a First-Year Seminar

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In 1996, some major changes at our university opened the door for me to experiment with new ways of conducting library instruction and to shift the emphasis of my contacts with students and teaching. Across campus, faculty were beginning to work in instructional teams. The teams consist of faculty, academic advisors, librarians, and student mentors, who share the responsibilities of planning and delivering courses. First-year seminars adopted this approach early.

Today, first-year seminars are an integral part of our university's Learning Community program. The purpose of the learning communities, and particularly of the first-year seminar, is to provide an environment that helps new students make the transition to college and succeed academically. A related goal of the program is to increase our student retention rate. Through this approach librarians work with virtually all first-year seminar students. Because these developments have refocused and expanded the roles of instructional librarians in students' learning, I felt more freedom to explore a new approach to library instruction.

New Emphasis in Library Orientation

I saw in the first-year seminar opportunities to experiment with alternative ways

of orienting students to research and the library. Rather than merely presenting library tools and teaching search strategies, I wanted to emphasize connections to the early stages of research and relate critical thinking to students' library use. It was important to me that they understand that *good library research requires critical thinking throughout the process, including its inception*.

Many of our students arrive on campus well accustomed to information technology and with high expectations of computer-based library resources. Many are quite familiar with the Internet and World Wide Web and equate research with searching electronic resources such as those available online. Students often are willing to ignore methods of finding information that do not involve a computer. For many, research is reduced to computer retrieval skills. Increasingly, students and faculty expect library instruction to consist of teaching online searching skills. They even grow impatient during the portions of librarians' presentations that center on critical thinking or printed resources, rather than technology.

In first-year seminars, I have contact with the students on the first day of class, outside the context of library instruction. After they know me as an instructional team member, I use the first "library session" to introduce students to research, focusing primarily on aspects of the process that occur before the information

collection stage. For the first session, I developed an in-class orientation that initiates students to research and the library. My main objectives are to guide their thinking about topics and information needs and help lay a foundation for successful research and information use. This also serves to preface a follow-up session that covers search techniques, electronic and Internet resources, and source evaluation.

When I first tried this approach, I wanted to use brainstorming and small-group activities to model the early stages of research, and role playing to demonstrate the connections of information need to specific sources and strategies. Our library faculty consultant reviewed my original plans and suggested a specific structure for the brainstorming exercise, as well as ways to make smooth transitions into role playing and small-group activities.¹

I tested this method in different classes and now use a modified version of it in a first-year seminar that is linked with an elementary composition course. For this particular seminar, the instructional team has integrated library skills and experience into a unit on diversity, as well as connecting to other aspects of the course, such as writing, public speaking, and critical thinking. I continue to use the activities every semester in that seminar to teach basic research processes. Though I facilitate this portion of the class, it truly is a collaboration with the writing teacher.

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The unit on diversity helps students learn how to do research, use library resources, and think critically about information. I facilitate in-class activities that guide students through the processes of generating ideas and potential research topics and eventually choosing their topics. I lead students in modeling these processes so that they can learn to use them independently in future research. I also help students learn about the importance of identifying their information needs before beginning the more active part of their research. Librarian involvement at the earliest stages of research helps take students' focus away from the mechanics of research and keep it on the whole process, which they will use again.

Teaching and Initiating Research

I begin the first session by leading students in a discussion about selecting research topics, which I follow with a ten-minute brainstorming session. To model brainstorming, I use an exercise we sometimes refer to as "the wall," because the classroom wall becomes a convenient workspace for displaying ideas. First, students call out broad research topics related to the general theme of diversity. Student recorders write the topics on large slips of paper and tape them to the classroom wall. After several minutes, there are a few dozen broad topics displayed on the wall. Then students go and stand next to the topic they are most interested in learning more about. We request that there be about three people per topic, so some may have to switch groups or choose another topic. Then we remove and put aside the several topics that students have not chosen.

In this way, groups form because of a common interest in a research topic. Some examples of general topics that students usually identify through brainstorming are gender, race, age, religion, level of education, ethnicity, language, socio-economic status, politics, and disability. Such general subjects have resulted in many specific, well-focused research topics that students used to complete their projects. The formal exercise models the process of individual brainstorming that researchers often use to conceive potential research topics.

After the students select topics, they

work in their groups (inside and outside class) to narrow or modify the topic and begin gathering information. After allowing a few minutes in class for individual groups to discuss and begin to focus their topics, I help each group identify the information needs for their research. While the rest of the class observes, each group takes a turn, and I help them connect their needs to types of information sources. When possible, I suggest actual reference sources they may find useful. That demonstrates that such a process can lead to appropriate sources and, ultimately, to valuable information. We also discuss briefly some criteria for evaluating the appropriateness and quality of sources.

Most of this class session involves making the assignment and starting students on their research. The group work continues outside the class and into the follow-up session a few weeks later. Through this process, librarians can give attention to the early stages of research, which we sometimes forgo.

Students must conduct library research that results in a brief presentation for each group. We require that each group use a combination of information sources and include at least a book, a magazine or journal article, a newspaper article, and a Web site. They also must submit a list of works cited (bibliography) with their presentation. The instructional team emphasizes the quality of the bibliographies and presentations.

Students' Perspectives on Learning to Do Research

Some students seem to expect that learning about research and the library will be "boring," or they may feel that they already know whatever they will need. Students frequently mention the size and complexity of the library itself as reasons why they need to learn about research and library processes. Less frequently, they recognize the complexities of research. Whether discussing the first or second library session, students almost always value the more hands-on aspects of a session. By far, most memorable to students are the "wall" activity, the question-and-answer modeling, and hands-on experience with computer searching. Students in my classes say that the library

sessions help them learn basic skills of doing research, including some technical skills such as using the library's online catalog. They also say that afterwards, they are more familiar with research uses of online databases and the Web.

After the class presentations, one semester, I interviewed some students and asked them to share their experiences with the project and to comment on the library sessions. One group had conducted research and given their presentation on single-parent college students. When asked for her thoughts on learning about topic selection in the first session, a group member, Becky, said emphatically, "That was great!" (All students' names are fictitious.) She especially appreciated the active nature of "the wall" and noted that "it got the class to all get involved. I love classes like that."

Becky also felt it was important that we recorded and displayed students' ideas during the activity. In comparison, she recalled her previous experiences with brainstorming activities and said, "I like the way you set it up—I like how you put all the ideas down on paper. Usually they're just shouted out and people try to remember them." A fellow group member, Maureen, agreed. She said she was familiar with brainstorming from high school and felt that it was helpful.

Several students have stated that they learned from the in-class brainstorming and questioning processes. They liked participating, rather than merely watching or listening to a teacher, or reading from a book or handouts. Many students simply appreciate an example to help them learn and understand the concepts and processes. As Maureen put it, "Sometimes, for me . . . if I don't have an example to go by, I have a really difficult time knowing exactly where to go."

After completing their projects, students seem to recognize topic selection as a key part of the research process and see brainstorming as helpful in the early stages. Students often are reluctant at first to participate in the "wall" exercise; however, once they start they become quite engaged and usually have fun. They begin to interact immediately with one another based on topics, needs, and strategies. One benefit of "the wall" is that students get a feeling that they have

begun their research and that some of the anticipated difficulties are behind them already. This gives them direction and increases confidence.

Comparing "the wall" to more familiar ways of initiating research projects and assigning topics, Becky said it "actually gets people started, and gets them on their way a lot better." She also believed that this exercise helped students save time in selecting topics, and that "... it definitely helped us to get going." In her overall assessment of the sessions, Becky said they helped students feel "more open" to coming to the library and using it. Her partner, Maureen, concurred and added that now, "I know where to go for help."

The collaborative nature of the project normally is beneficial for students. They generally enjoy the group work aspects of the project and library sessions. Sometimes, however, they complain of problems related to the group work and have reported difficulties. Those usually center on group organization and coordination of students' schedules. There are a few other potential problems to be aware of when using this approach. As is often a danger when assigning group projects, some members may not participate or do their share. Maureen expressed that she particularly enjoyed the group work; however, she and Becky both noted the lack of participation of a third group member. These are opportunities to coach students in group processes and encourage communication and problem solving.

Another problem might occur if a group divides responsibilities in a way that precludes all members from learning or practicing some of the research skills. For instance, students sometimes wish to designate one group member to focus on books, another on articles, and another on Internet sources. Sometimes a group may want one member to conduct the research,

while another prepares and gives the presentation. I discourage such approaches, as they are counterproductive to the objectives of this project.

One group, whose project was on different treatment of college athletes, was not quite as enthusiastic about the sessions. Jack, a member of that group (who had transferred recently from another college), was indifferent about aspects of the sessions that addressed the whole research process (the "big picture") and seemed to focus his attention mostly on the mechanics of finding sources. He reasoned:

I had a good sense of the way you look materials up from what I learned in high school and in a year at college. . . . I already knew a lot of things about the library and how to access the information. You know one library system [and] the other is pretty easy to figure out.

Jack did feel that the session on computer use helped his group to save time. Even though he felt he did not need the first session and did not benefit greatly from it, it was valuable to most other students. He said, "I thought it was a good way to show someone how to do research. If that person has little experience in the library or is just coming right out of high school that was a good exercise."

Conclusion

Students are responsive to this method of teaching research and library use, and it appears to be successful. The active nature of the approach seems to be what most captivates students. In learning communities where I have applied it, instructional team members also have liked this approach. Compared with more traditional lecture and demonstration techniques used in library instruction, modeling research processes and including students actively in learning are more enjoyable to both students and teachers.

Most students benefit from the collaborative nature of the project, though a few sometimes would prefer to work individually. The in-class modeling helps students learn through experience and by example, which they appreciate. They also must follow through, connecting these experiences to the whole process of completing their assignments. Most believe that this will be valuable to them in future research. Moreover, I believe that this type of realistic, nonthreatening orientation to library research also helps my students become comfortable and familiar with the library and its resources and personnel.

NOTE

1. I gratefully acknowledge Dr. Jay Fern, Indiana University School of Music, for introducing me to the "wall" technique.

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