

“Improving Information Fluency: Creating a Model Web Page Design Project for Undergraduate Courses”

Final Report

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The goals of this grant were to introduce faculty and staff to the goals of information fluency and present a model for a web-based design project that could be used in undergraduate courses to improve the information fluency of students by focusing on developing their critical thinking, information literacy, and computer skills.

During the summer of 2001, the grant recipients planned a workshop for Centre Faculty and Staff on how to incorporate a Web-based design project into undergraduate courses. The workshop agenda was built around the need for instructors to understand the basic goals of information fluency, the benefits of collaborating with library and IT staff in implementing a project that meets these goals, and introducing the use of Web composition software. This workshop was conducted on August 22, 2001 with 15 Faculty and Staff as participants (see attached participant list and workshop schedule).

The morning session of the workshop was devoted to 1) defining information fluency; 2) introducing the components of an assignment that promotes information fluency\*; 3) providing examples of Web-based design projects that meet the IF goals (see attached Biology model); and 4) presenting a model of how an instructor can collaborate with library and IT staff to guide and instruct the students in achieving the objectives of the assignment.

The afternoon session was devoted to introducing the participants to Dreamweaver software and providing the participants with time to learn how to use the software.

- \*1. how to select a topic that is appropriate to the course and assignment,
- 2. how to determine the type of and amount of information needed to complete the assignment,
- 3. how to search for and access that information,
- 4. how to evaluate the information critically,
- 5. how to organize the information,
- 6. how to use the information ethically and legally, and
- 7. how to effectively present the information on a web page.

A survey of participants at the end of the 2001-02 school year showed that several faculty and staff utilized the information learned at the workshop in one or more activities during the

academic year. A sample of some of the web-based activities follows (quotes are from survey responses):

1. Freshman studies class (“Evolutionary medicine”, Winter Term 2002) and Soph Biology class (“Evolutionary genetics”, Spring Term 2002)  
Students were required to prepare research papers in the format of a web page. These were published on a web site that was accessible to the students in the class, but not the general public. “The students seemed to like the assignment. It provided a means of exposing them to the details of working with electronic media.” “I will probably do this kind of assignment again.”
2. Soph/Jr/Sr Biology class (“Biology of Viruses”, Winter Term 2002)  
Students, working in groups of two, were required to create a web page on an assigned virus or virus family. See <http://web.centre.edu/~bio/richey/studentwebpages/clint/index.htm> for an example. “This is a great assignment for meeting all of the IF goals.” “I worked with IT staff to instruct the students in how to use Dreamweaver and in trouble-shooting problems.” This course also had a course web page, see <http://web.centre.edu/~bio/richey/Bio255.htm>
3. Soph/Jr/Sr Drama class (“History of Theatre”, Fall Term 2001)  
Students were provided with a CD-ROM of interactive material on the course topic. The CD-ROM was created by the instructor using Macromedia software.
4. Jr/Sr Education class (EDU 330, Fall Term 2001) and Freshman Studies class (Winter Term 2002).  
Syllabus for courses was provided on a web page. Student work was added to the web page, although students were not taught how to make their own web page. See <http://web.centre.edu/edu/FRS%20116/StudentWork.htm>, click on “Education Plans”. “The students in my freshman seminar became quite engaged in the project of planning a new educational system for East Africa. They were working in groups, and they had to use a good many Internet sources. Because they were publishing their results, I thought that most students and groups made an extra effort to be thorough and creative.”
5. Planning for the creation of a campus-wide image database (art and architecture) to be used in Humanities and Art courses. This project is being planned by the college slide curator.
6. Web site for Science and Math Division with information on scheduling, forms for faculty use, news in our buildings, etc. This project was done by the Science and Math Division secretary.

Several participants responded that they intend to implement a web-based assignment/component in one or more of their classes in 2002-03. “I got some ideas I like in the workshop, but I haven’t been able to apply them to my own teaching yet. I hope to do so in the future.”

In conclusion, it looks like a few of the participants who were already comfortable with using technology in the classroom were able to incorporate one or more aspects of the workshop into one or more of their courses. Centre has a new Academic IT staff member, since December 2001, who has provided introductory and intermediate training in Dreamweaver and other

software to the faculty and staff over the past six months. In addition, another IF workshop (3 days) for faculty was held in early June, 2002. This workshop allowed faculty to learn how to use Dreamweaver, Photoshop, and Powerpoint software. Our expectations are that as more faculty and staff are trained in how to use computer technology they will assign course projects that will promote information fluency in students.

**Information Fluency Workshop  
Centre College  
August 22, 2001**

Participants

Tom Baker, History  
Steve Beaudoin, History  
Don Brown, Psychology  
Brian Cooney, Philosophy  
Bill Garriott, Government  
Tony Haigh, Drama  
Barbara Hall, Music  
Matthew Hallock, Drama  
Danny Henderson, Biology  
Ken Keffer, French  
Werner Klimke, German  
Judy Naumann, Division 3 staff  
Brad Nystrom, Education  
Ann Silver, Art staff  
Jack Thompson, Psychology  
Rob Ziemba, Biology

Leaders

Sam Fee, Coordinator of Instructional Technology, Assistant Prof., Education  
Matthew Hallock, Assistant Prof., Drama  
Mary Beth Garriott, Reference Librarian  
Connie Klimke, Reference Librarian  
Peggy Richey, Associate Prof., Biology and Biochemistry

**Information Fluency Workshop**  
**August 22, 2001**

**Schedule**

**8:30-9:00**      **Coffee/Muffins**

**9:00-9:15**      **Introduction to/Purpose of Workshop** (Peggy)

- introduction to workshop leaders
  - what is information fluency?
  - what is a Curricular Web Page project?
  - what will you learn today?
  - feedback/evaluation

**9:15-9:45**      **Examples of incorporating a Curricular Web Page Project in a course**  
(Matthew and Sam)

**9:45-10:00**    **Individual/ Small group brainstorming**

- what kind of Web Page project could you do in one or more of your courses?

**10:00-10:30**   **Sharing ideas/discussion** (Sam)

**10:30-10:45**   **Break**

**10:45-11:00**   **Example of a Curricular Web Page project for BIO 11** (Peggy)

- select an appropriate research topic (instructor)
- determine type and amount of information needed to complete the assignment (instructor)

**11:00-12:00**   **Research Strategies** (Connie and Mary Beth)

- how to search for and access information (librarian)
  - how to evaluate sources of information (librarian)

**12:00-1:00**     **Lunch**

**1:00-1:15**      **Evaluating and Organizing Information** (Peggy)

- how to evaluate information (instructor)
- how to organize information (instructor)
  - create course Home Page
  - provide a template

**1:15-2:15**      **Web Pages** (Matthew and Sam)

- how to create a Web page using Dreamweaver (instructor w/IT support as needed)
- the basics of Web page construction
- effective design
- ethical and legal use of content and images
- publishing concerns

**2:15-3:15**      **Practice Web page construction skills with BIO 11 content and images**

**3:15-4:15**      **“Free” time**

- practice Web page construction
- consult with workshop leaders re: implementation for your course(s)

## BIO 11 Sample Web Page Project

Choose a non-human organism that you find interesting. Obtain my approval of your topic by \_\_\_\_\_.

Using a variety of scientific resource materials, thoroughly research this organism. Your research should include answers to the following questions:

- What is the scientific name of your organism?
- How is your organism taxonomically classified?
- What is its worldwide geographical range?
- What is its current status (thriving, threatened, endangered, nearly extinct)?
- What are the main features of its life cycle (life span, age at reproduction, number of offspring, nutrient requirements, habitat requirements, etc.)?
- What are some specific adaptations that this organism possesses that make it especially well adapted to its environment?
- Has this organism been either directly or indirectly impacted by human activities?
- Does this organism have an impact on humans?
- What is one area of current research being done on this particular organism?

You will be expected to use at least **five** reliable, legitimate scientific resources to answer these questions. Part of your research will involve reading, understanding, and critically evaluating information that you find in order to determine 1) if the source is a reliable, accurate and authoritative source of scientific information, and 2) if the source provides information that is useful in answering your questions.

To help you sort through the available sources and determine whether or not a source is reliable, accurate and authoritative, our class will meet with \_\_\_\_\_ on \_\_\_\_\_. Mrs. \_\_\_\_\_ will provide guidance on 1) how to search for and access information on your topic, and 2) how to critically evaluate sources of information. Also, refer to the **Guidelines on Sources** section on the next page.

Once you have selected, critically evaluated, and organized your information, you are to design and create a Web page that presents this information. A workshop will be held on \_\_\_\_\_ during which you will 1) learn the basics of designing, creating, and publishing an effective Web page, and 2) be instructed in using your gathered information ethically and legally. All web pages will be linked to the Bio 11 web page.

**BIO 11**  
**Web Page Project**

**Guidelines on Sources**

Acceptable Sources:

- Science journals, including *Science*, *Nature*, *Discover*, *Natural History*, *New Scientist*, *American Scientist*, *Scientific American*, *Bioscience*, *National Geographic*, *Trends in Evolution and Ecology (TREE)*. All of these journals can be found in the Centre College Library.
- Science books—found on the 2<sup>nd</sup> floor shelves of the library.
- Science textbooks (for college), including your Bio 11 textbook.
- Instructor-approved Internet sources. Many Web sites are, in general, untrustworthy and do not meet the criteria of being reliable, accurate and authoritative. This is because anyone can publish whatever they want on the Internet and often do just that. However, there are some Web sites that may be useful and acceptable for this assignment. The most reliable, accurate and authoritative Internet sources of information can be found through the Web sites of museums and universities, recognized scientific societies, and U.S. Government agencies. In addition, some science research journals offer full-text on-line access. To make sure that you use only acceptable Internet sources, **you must get my approval for every Internet source that you use for this assignment at least 3 days prior to the deadline for the assignment. Failure to obtain my approval for an Internet source.....**

Unacceptable Sources

- Non-science magazines, e.g. *Time*, *Newsweek*, *U.S. News & World Report*, etc.
- Newspapers
- Encyclopedias
- Unapproved Internet sites.