OFFICE OF
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Information Literacy (Gen St 391) Winter and Spring, 1998

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SUMMARY

Information Literacy as a Liberal Art was offered as a two-credit course (GenSt 391) in Winter and Spring quarters, 1998. The course provided an introduction to information resources "in an electronic environment," and enrolled primarily student athletes and EOP (Educational Opportunity Program) students. Short pre- and post-tests assessed student experience, skill level and knowledge, and a post-course instructor debriefing yielded a set of recommendations based on the test results and experiences over the course of the quarter. Students showed increases from pre- to post-test in both self-reported and objectively assessed knowledge. Recommendations centered around integrating information and technology literacy into undergraduate education campus-wide.

THE COURSE

Information Literacy as a Liberal Art was taught by University of Washington (UW) librarians (two per section). The course presented information retrieval and use as a three-step process:

- *Find what you want* -- searching and evaluating online resources
- *Get what you want* -- retrieving information, including articles, books, documents
- *Use what you've found* -- evaluating and incorporating resource information into multiple uses

Although the various sections of the course differed somewhat, each included information on the UW networked environment, using e-mail, transferring files, using library databases, searching the web, evaluating sources, and specific applications such as Microsoft Word® or Powerpoint.® Course syllabi were provided over the Internet, and e-mail was used as one method of student-student and student-instructor communication. Students were required to research and report on a topic of their own selection using information resources.

Two sections of the course were offered in Winter quarter, and one in Spring. In each section, a short Pre- and Post-Test was administered at the beginning and end of the academic term. Items assessed self-reported experience in using the Internet and e-mail (two items), self-reported skill level in using various resources (six items), and knowledge and understanding of course-related material (seven items).

Approximately twenty students enrolled in each section, and the numbers of completed pre- and post-tests are shown in Table 1. The number of students who completed <u>both</u> the pre- and post-test is also given.

TEST RESULTS

Responses to each of the items on the pre- and post-tests are shown in <u>Table 1</u> and summarized below by item content.

Table 1.

Number of Completed Pre- and Post-Tests

	Winter - A	Winter - B	Spring	TOTAL
Pre-test	15	21	12	48
Post-test	18	20	14	52
Both pre- and post-test	12	18	10	40

Experience

The seminar provided exposure to and practice with a variety of activities using the Internet and e-mail. Students were asked to report their level of experience with seven specific Internet activities. The majority of students had prior experience with using the Internet to:

- write and send correspondence (81.2%), or
- browse the Web (83.3%).

By the end of the course, most students had used the Internet to:

- read a newsgroup (59.6%),
- transfer files (67.3%),
- participate in online discussion groups (53.8%), or
- create a web page (75.0%).

Considering only those students who took both the pre- and post-tests, the number of students who reported at least some experience increased significantly for five of the seven activities, and although there was no significant difference in experience with obtaining software over the Internet, the number of students who reported they had done so doubled from eight to sixteen.

The number of students who reported experience with e-mail increased from the pre-test to the post-test for all of the six listed uses; however, only three of these differences were statistically significant in part because the level of use for general chat or to keep in contact with friends and family was already very high at the start of the course (81.2% and 92.8%, respectively). At post-test, all of the students reported having asked an instructor a question over e-mail, and nearly all (96.1%) reported having submitted an assigment via e-mail.

Self-Reported Skill Level

Students felt themselves to be much more capable in using a variety of applications at the end of the course than they had at the beginning. Using a five-point scale, students were asked to rate their own expertise with six types of software such as word processing and Internet access programs. Significant increases were observed for all six items, with the three Internet-related items showing the greatest increases.

Knowledge and Understanding of Course-Related Material

Students showed a significant increase in objective knowledge of material taught in the course. The mean score on the end-of-quarter administration was significantly higher than the mean at the beginning of the quarter (4.9 vs. 2.8, respectively, out of eight possible). The increase in the mean over baseline provides support for the efficacy of the course, but it is unclear how much of the increase was contributed by use of identical items on both the pre- and post-tests.

INSTRUCTOR REFLECTIONS AND RECOMMENDATIONS

Course instructors summarized student growth as occurring in two primary areas as follows:

Technology skills

By the end of the quarter, students were comfortable communicating through electronic mail with professors and classmates, searching the World Wide Web, retrieving information from online databases and indexes, creating written documents and slide presentations, transferring files from one computer to another, and connecting to the campus network while on the road. Many created their own web page to present information about a topic of their choice.

Research and writing skills

In addition, the students improved their skills in evaluating online sources, using source material properly, citing electronic and printed sources, and becoming more familiar with alternate sources of information.

Based on these observations and a review of the pre- and post-test results, a post-course discussion among all instructors yielded the following set of general recommendations:

- Basic information literacy competencies should be integrated into lower division subject-domain courses.
- Instructional technologies should be incorporated in instruction provided within academic departments.
- Courses such as GenSt 391 should be "mainstreamed" by opening enrollment to all students, listing the courses in the Time Schedule and advertising them widely to undergraduate advisers. Restricting entry to specific groups isolates students and does not provide a rich learning experience.
- Subject/discipline-based literacy sessions should be built into required courses and assignments. Although courses such as GenSt 391 are taught by librarians, they should not be considered an extension of library instruction, and librarians should be listed as instructors of record.
- Notions of socio-structural literacy (how information is created, published, etc.) should be included in the Library and Information Science curriculum.

Specific to optimizing UWired services to student athletes, instructors suggested that:

- Tutor training should be augmented, particularly for traveling teams.
- Intercollegiate Athletics (ICA) labs should teach basic computer skills including keyboarding, Windows manipulation, network connection, word processing and e-mail functions.
- There is a need for an ICA/UWired educational coordinator for information literacy/technology.

Our experiences also gave rise to a set of recommendations specific to the process of assessing program effectiveness. Information garnered from such assessment would be very much improved if there were:

- An agreed upon specification of desirable skills, knowledge and understanding relative to use of information resources by undergraduates at the University of Washington, and
- A concommitant set of objective measures.