OFFICE OF EDUCATIONAL ASSESSMENT
Improving Learning Through Assessment

OEA Report 98-09

Information Resources in Interdisciplinary Writing Program (IWP) Courses: Winter and Spring, 1998

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October, 1998

SUMMARY

The University of Washington (UW) Interdisciplinary Writing Program (IWP) provides five-credit expository writing courses each of which is linked to a discipline-based lecture course. Students enroll in both the writing and discipline-based courses, and complementary assignments allow them to improve their writing skills within a subject area of their own particular interest. In Winter and Spring of 1998, the UW UWired program sponsored a pilot program adding librarian-taught class sessions to existing IWP courses. These sessions focused on the use of information resources in the context of student research for writing assignments. Post-course questionnaires were composed primarily of items drawn from the *Flashlight*™ *Current Student Inventory*.[1] Students indicated that they had gained skills that were transferable to other research activities and that they were using, and evaluating, a wider variety of information resources than previously. Students had had little prior experience with on-line research, and rated the instruction very highly. These outcomes suggest that the UWired/IWP collaboration meets a particular instructional need. A focus group of IWP instructors and administrators, held at the end of Winter quarter, discussed effective instructional approaches in the context of the UWired/IWP collaboration, and suggested that course portfolios might be used to encourage faculty participation in teaching partnerships. Based on the feedback received from both students and faculty, the UWired/IWP collaboration provides a promising avenue to instruct students in the use of information resources. Specific next steps might be the development of 1) a set of common topics of instruction to be used in each of the UWired sections of English 197/198 (without inhibiting instructors' input and creativity), and 2) a range of class learning activities for each topic to facilitate increased participation by librarians throughout the UW Libraries. Common topics would ensure not only a more consistent level of student outcomes, but also allow for more focused evaluations.

THE COURSE

UWired began a collaborative effort with the Interdisciplinary Writing Program (IWP) in Winter 1998 to supplement expository writing instruction with instruction in library research processes and information evaluation. The IWP uses an integrated instructional model in which writing instruction is provided to students who are concurrently enrolled in a discipline-based lecture course, and assignments complement those of the lecture course. Because information seeking and evaluation are integral to the process of writing, the collaboration with the IWP was thought to be an effective way to introduce use of information resources into the undergraduate curriculum.

The IWP offers five-credit courses (English 197/198) that customarily meet three days a week. IWP instructors assign two or three major writing projects each quarter, each of which is revised and turned in for comments at least twice. Thus, students turn in a writing product approximately weekly. The IWP makes extensive use of peer review in addition to instructor comments and conferences. Peer review promotes the understanding of writing for an audience as well as getting comments from other students. Additional class days were scheduled for five sections of Engl 198 in Winter quarter, 1998, and for six sections in Spring. During these sessions, UW librarians provided instruction in the use of information resources in a way designed to complement course assignments. The specifics of writing assignments, and hence the information resources and retrieval methods covered by the librarian-instructor, varied considerably across sections. A writing link to an American history course may involve students in historical research with primary source materials. Students in a writing course linked to a geography class may be asked to use observational field methods and statistical data sets to examine urban phenomena. The librarian-IWP instructor collaborations varied in content and number of sessions taught, with each section including some but not all of the following:

- use of a UWired Collaboratory up to one day a week
- class discussion via email
- on-line peer review of assigned writing
- course web page supporting instruction
- instruction in:
    - evaluation of print and/or Web-based information
    - specific library resources, databases, and research methods
    - creating Web pages
    - use of the Internet for research

The effectiveness of the librarian-taught class sessions and quality of the librarian-instructor collaboration were assessed by means of post-course questionnaires and an instructor/administrator focus group.

POST-COURSE QUESTIONNAIRES

Post-course questionnaires were composed primarily of items drawn from the *Flashlight™ Current Student Inventory*.[1] This newly available itembank was created to enable systematic assessment of the effectiveness of educational technology in promoting student learning. Items had not been used previously on this campus and this application was largely exploratory. Items were taken from the itembank verbatim for the Winter post-course questionnaire, and were modified somewhat for Spring. The questionnaires and student responses are shown in PDF format:

Winter quarter questionnaire

Spring quarter questionnaire

Respondents

Approximately twelve students enrolled in each of the eleven course sections (N=132), and returned a total of 69 (52.3%) completed post-course questionnaires. Course enrollment was predominantly lower division, with more freshmen than sophomores in Winter quarter, and more sophomores than freshmen in Spring (Table 1).

Table 1. Respondent class distribution (Percent)

	Freshman	Sophomore	Junior	Senior
Winter	54.1	21.6	10.8	13.5
Spring	38.7	45.2	6.5	9.7

Student responses are summarized below:

Student Preparation

Quality of Instruction

Value of E-mail

Value of Library and Internet Research

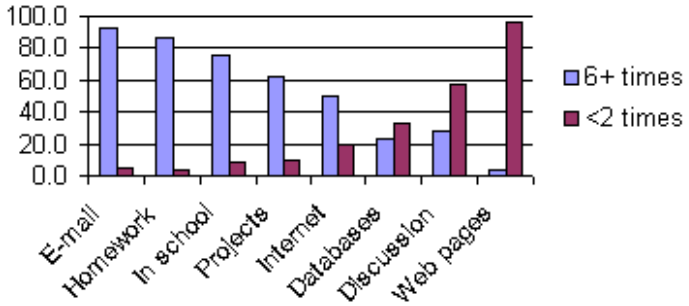
Value of Creating Web Pages

Value of On-line Peer Review

Student Preparation

Students reported fairly high levels of previous experience using computers for communication or school work, but they had not had as much experience conducting on-line research. As shown in Figure 1, the majority of students had used computers to communicate via e-mail or to work on school assignments at home, and more than half had used computers in school or to work on personal projects. About half of the students had researched topics over the Internet, but fewer had used on-line library databases or participated in on-line discussions. Essentially none of the students had previously created Web pages.[2]

Figure 1. Prior experience with computers (percents)

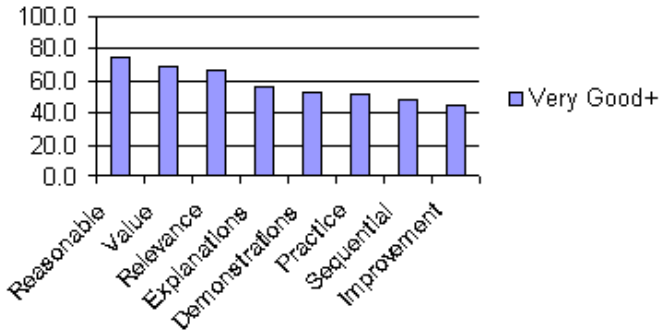


Access to computers and technical support did not pose problems for students in these classes. Most students (78.5%) had computers in their residence that they used to do work for this course, and the remaining students used campus computer labs. Essentially all students reported having sufficient access to a computer and sufficient technical support to do their work.

Quality of Instruction

Overall student ratings of course quality were very high. As shown in Figure 2, the majority of students rated the librarian-taught sessions as *Very Good* or *Excellent* with respect to the amount of work assigned, the overall value of the sessions, and the relevance of the course content. About half of the students gave these ratings to explanations and demonstrations by instructors, opportunities for practice and sequential development of skills. The lowest ratings were given to improvement of writing in other courses, a more indirect course outcome.[3]

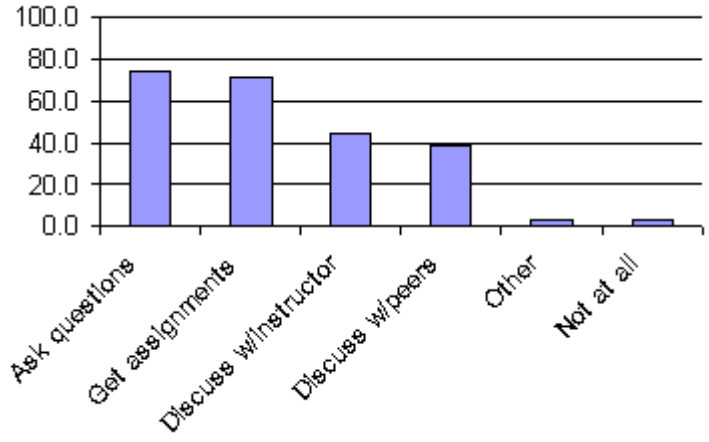
Figure 2. Ratings of quality of instruction (percents)



Value of E-mail

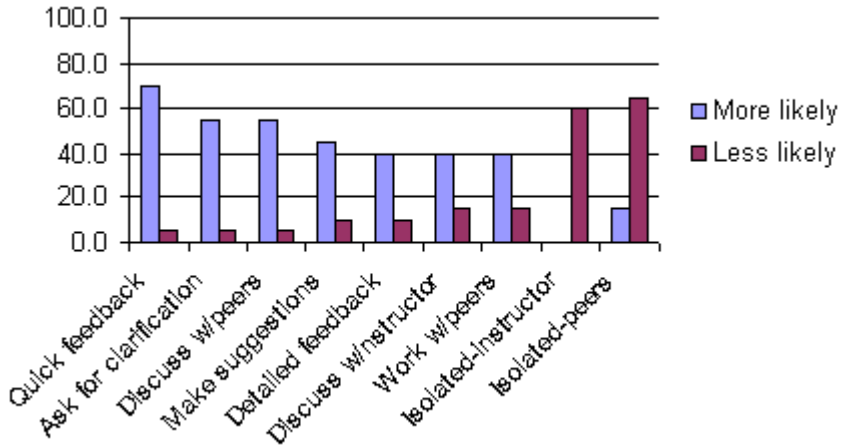
Students were either encouraged or required to communicate using e-mail in nearly all sections. As shown in Figure 3, the majority of Spring quarter students reported using e-mail to ask questions of the instructor, or to get course assignments or announcements. (This question was not asked Winter quarter.) Fewer students made use of e-mail as a means to discuss class topics with the instructor or with other students.

Figure 3. E-mail used for ... (Spring quarter percents)



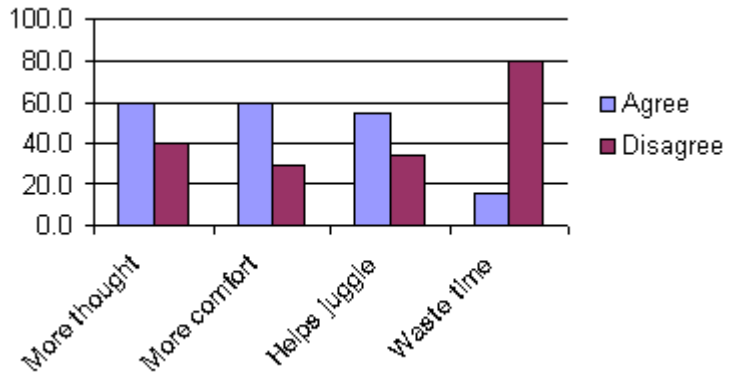
Items taken from the *Flashlight* itembank asked students to compare their experiences in this course with those in similar courses that relied on 'face-to-face' discussions. In Winter quarter, student responses showed strong agreement that e-mail facilitated many of the communications implicit in teaching and learning (Figure 4). The majority of students *Agreed* or *Strongly agreed* that e-mail allowed quick feedback from instructors on assignments, and decreased feelings of isolation from the instructor or other students. Approximately half indicated that they were more likely to ask for clarification when they didn't understand something and discuss course concepts with other students.

Figure 4. Because of the way this course used e-mail, ... (Winter quarter percents)



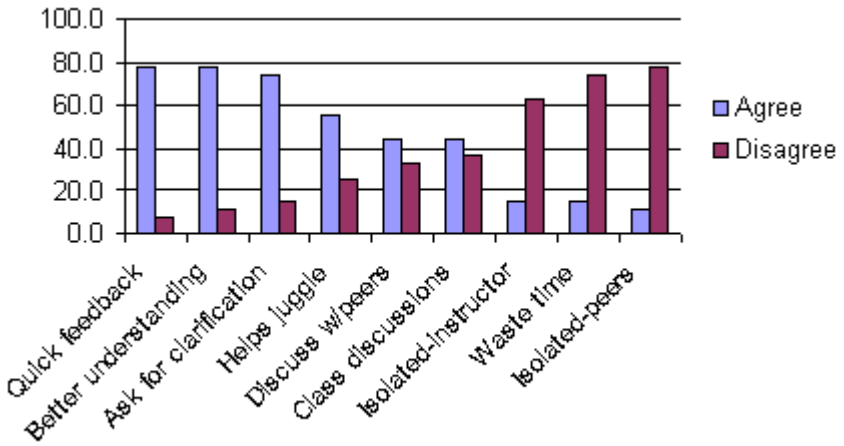
A second set of *Flashlight* items asked students to compare their experiences with those in other classes, using a different response scale (Figure 5). Although sizable percentages of students *Agreed* or *Strongly Agreed* that the way e-mail was used enabled them to make more thoughtful comments, feel comfortable about asking awkward questions and juggle their school and home responsibilities, there was less consensus than in the preceeding item set. Whether this was due to item content (the specific questions asked) or format (the way they were asked) is not clear. Students did agree that they did not have to waste a lot of time sorting messages.

Figure 5. Because of the way this course used e-mail, ... (Winter quarter percents)



Items were converted to a single format for Spring quarter, shortening the questionnaire and controlling for the possibility that student responses reflected the way questions were asked rather than what was asked. As can be seen in Figure 6, students predominantly agreed that e-mail promoted quick feedback from the instructor, a better understanding of concepts taught in their linked courses, and made them more comfortable in asking for clarification when they didn't understand something. They disagreed that e-mail led them to feel more isolated from their instructor or other students, or caused them to waste time sorting messages. These results are consistent with those from Winter quarter and provide strong support for the use of e-mail to facilitate communication and connectedness among students and instructors.

Figure 6. Because of the way this course used e-mail, ... (Spring quarter percents)

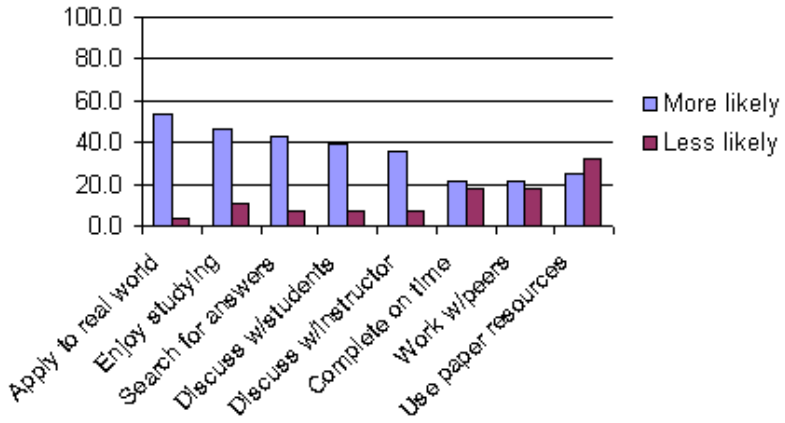


Value of Library and Internet Research

The primary focus of the librarian-taught sessions was on finding and evaluating information, particularly using on-line resources such as library databases and the Internet. *Flashlight* items again were used to ask students about what they had learned and, as above, items were modified between Winter and Spring quarters.

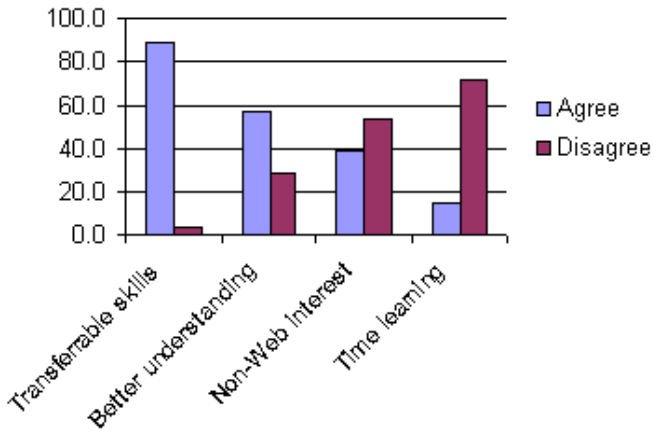
As shown in Figure 7, about half of the Winter quarter students indicated that because of what they had learned they were *Somewhat more likely* or *Much more likely* to apply their learning to "real world" problems. Somewhat fewer were more likely to enjoy studying for the course, and roughly one-third were more likely to search for answers themselves, rather than asking others, and to engage in discussions with instructors and other students.

Figure 7. Because of what I learned about Internet research, ... (Winter quarter percents)



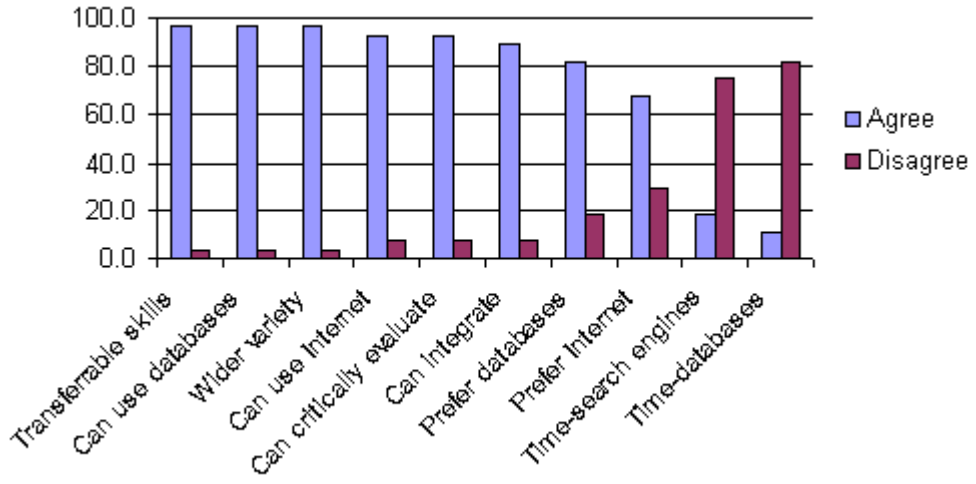
Students felt strongly they were learning skills transferable to other research activities, and did not believe that too much time was spent learning to use World Wide Web search engines (Figure 8). More than half felt they were better able to understand concepts taught in this course. A similar number stated that their interest in undertaking research using traditional resources had not decreased, but one-third said that their interest had decreased.

Figure 8. Because of what I learned about Internet research, ... (Winter quarter percents)



Spring quarter ratings regarding instruction in on-line resources were much stronger than those of Winter quarter (Figure 9). Most students believed that they were acquiring transferable skills, that they now used a wider variety of information resources and knew how to locate resources using databases and the Internet. Most felt that they could critically evaluate information and integrate it into their writing. Students did not feel that they were spending too much time learning to use databases and search engines.

Figure 9. Because of what I learned about Internet research, ... (Spring quarter percents)



Value of Creating Web Pages

In a few course sections students were required to create Web pages. Because this was true of only one section Spring quarter, these responses are not summarized here. In the three Winter quarter sections that required Web pages, about half of the students stated that because of these assignments they were more likely to work with other students, produce multiple versions of assignments and complete their work on time (Figure 10). Students were more evenly divided regarding whether they were also better able to communicate their ideas, or whether creating Web pages took time away from other learning in the course (Figure 11).

Figure 10. Because we created Web pages, ... (Winter quarter percents)

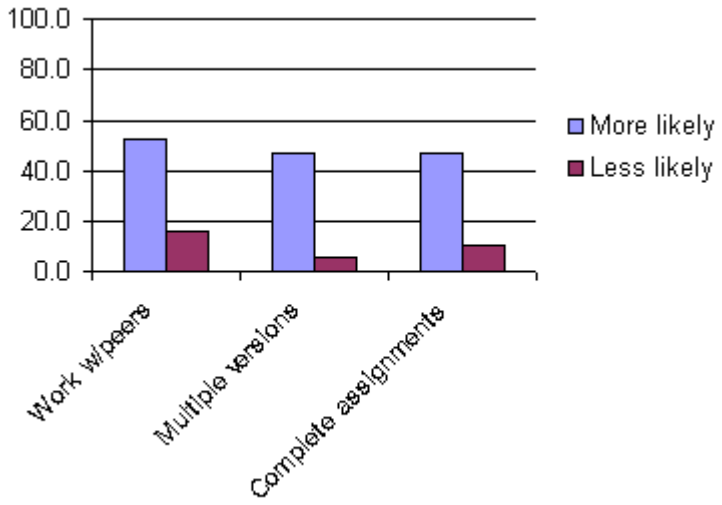
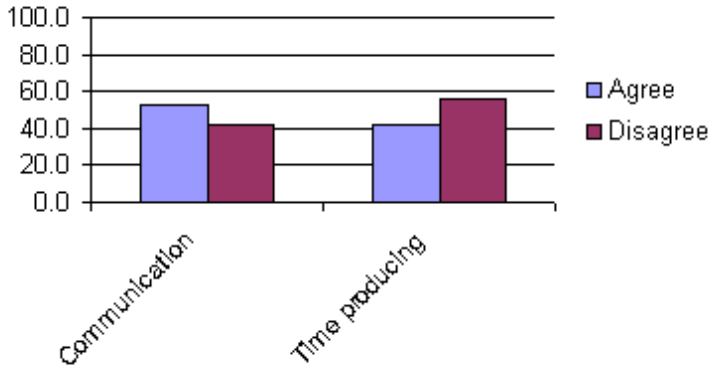


Figure 11. Because we created Web pages, ... (Winter quarter percents)



Value of On-line Peer Review

UWired created a web-based tool to enable peer review of student writing. This tool was used in two course sections in Winter and two in Spring, but sufficient data for analysis was received only for the Winter group. As shown in Figure 12, the majority of students indicated that on-line peer review gave them quick feedback, while slightly less than half areed that they received individualized attention through the use of on-line peer review and disagreed that it caused them to feel isolated from their peers. Most students disagreed that the on-line system took too much time to learn to use (Figure 13).

Figure 12. Because we used on-line peer review, ... (Winter quarter percents)

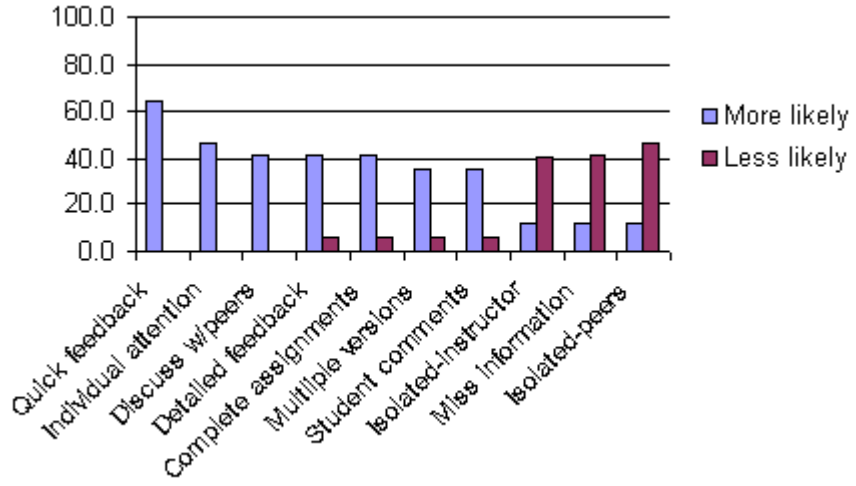
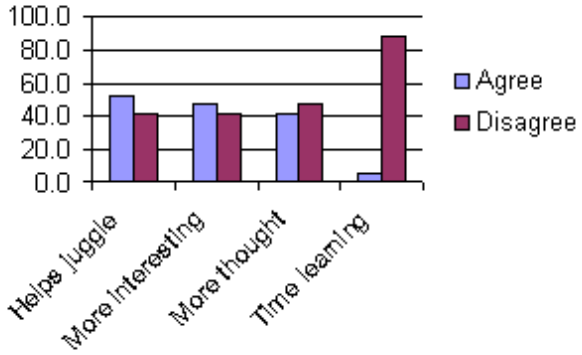


Figure 13. Because we used on-line peer review, ... (Winter quarter percents)



FOCUS GROUP

At the end of Winter quarter, IWP instructors and librarians were invited to participate in a focus group discussion about their experience with this new model of instruction. The turnout for the conversation was small, and included the IWP administrator and two IWP staff writing instructors who had extensive experience with the IWP program as well as with incorporating library instruction in their courses. The instructors observed that students enrolled in the IWP writing link seemed in general to be somewhat less experienced than students in the linked lecture course. As freshmen and sophomores they have less exposure to the discipline and may not yet be self-directed learners. Nevertheless, writing link students often do better on papers for their lecture course than students not enrolled in the writing link. This may be due partially to the opportunity to create multiple, critiqued, revisions of their papers, but in some of the lecture courses the opportunity to revise is available to all students. More unique to IWP writing links are class trips to the library, and in-class discussion of secondary literature of the discipline. Specific instruction in use of information resources (technological or traditional) may be what gives these students the edge. Additionally, some IWP instructors have used technology to facilitate "efficient" use of course time, for example by requiring students to respond by email to a list of questions on assigned reading. By reviewing responses before class, the instructor can 1) ensure that students have done the reading, 2) identify areas of confusion for in-class discussion, and 3) move the discussion beyond a basic exposition of the reading content.

For these particular instructors, changes in teaching methods due to the UWired collaboration centered on the addition of technological options. The instructors already made extensive use of librarian instruction for their courses, scheduling anywhere from two to four sessions with a librarian in a given term. Additionally, they valued and encouraged collaboration and cooperative learning among students. The instructors suggested a need to involve more faculty in collaborative teaching parnerships, and recommended the development of course portfolios to demonstrate the value of this approach to instruction. Portfolios should include examples of student work along with student reactions to the instruction. Participants noted that the UWired/IWP collaboration relies on increased instructional time by librarians and the extension of the model may require release time and/or involvement of additional librarians.

RECOMMENDATIONS

Based on the feedback received from both students and faculty, the UWired/IWP collaboration provides an approach worth pursuing with regard to instruction in the use of information resources. To create a model that can be used by a number of instructors and to permit a more focused evaluation, it would be desirable to:

- develop a set of common topics of instruction to be used in all sections of UWired/IWP courses, and
- create a range of class learning activities for each topic.

Additionally, instructors cautioned that the UWired/IWP model requires a greater time commitment from librarian-instructors than do most courses. If it becomes desirable to make this type of course available to a significant number of students it will be necessary to identify a mechanism to direct a larger amount of librarian time to instruction, perhaps by allowing release time for interested librarians.

[1] Ehrmann, S.C., & Zúñiga, .E. (1997). **The Flashlight ™ Evaluation Handbook**. Corporation for Public Broadcasting.

[2] Responses were similar for Winter and Spring quarters and so were combined. Exceptions are *Do research using on-line library resources*, *Do research using WWW/Internet resources* and *Create pages on the WWW/Internet*, which were asked only in Spring quarter.

[3] As in Figure 1, the graph shows averages of Winter and Spring ratings, with the exception of *Sequential development of skills* which was included only on the Winter questionnaire, and *Improvement of your writing in your other couses* which was included only in Spring.