

Go for the Gold: A Web-Based Instruction Program

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ABSTRACT

Go for the Gold is a Web-based instruction program developed at James Madison University to teach beginning students how to find and evaluate information. The 17 instructional modules that comprise the program are based on objectives that are part of a new competency-based general education curriculum. Go for the Gold replaces a self-paced library skills workbook that had been used by freshmen for over a decade. The Web-based program shows a number of advantages over the workbook; however, initial implementation efforts pointed to the need for additional faculty training in technology skills and assistance in integrating the modules into their courses.

Introduction

After over a decade of using a library workbook to teach beginning students information-seeking skills, James Madison University (JMU) made a dramatic shift to a Web-based instruction program called Go for the Gold. This set of instructional modules and assignments was developed by the Reference Department at Carrier Library in support of a new University wide, competency-based, General Education program which includes information-seeking skills as an integral part. The purpose of this paper is to describe the development of the Go for the Gold program, the rationale behind the decision to switch to a new medium of instruction, implementation of the program, and our evaluation of its success so far. We will also discuss our future plans.

From Workbook to Web-based Program: Why Switch?

The library skills workbook, which was used in English composition classes at James Madison University for 12 years, served as the primary method of teaching beginning students how to find information. The self-paced, individualized workbook contained assignments that the students completed and handed in to their English instructors. As a method of basic instruction, the workbook offered many advantages. It served large numbers of students, and assessment data showed that it was an effective method that students found useful. It took only about a month of staff time to produce and update each year. Since students purchased the workbook, it was very inexpensive for the library to produce. Although it was not a formal part of the curriculum, the English Department required all sections of freshman composition to use it. Librarians could assume students had received training in basic skills and could, therefore, teach majors more advanced skills in course-related instruction.

Although the workbook had been an effective tool for basic instruction in the relatively stable environment of the 1980's, it was not flexible enough to accommodate the technological changes nor exponential increase in the sheer quantity of information in the 1990's. It was impossible to keep workbook content up to date as

new software was released and new information was added to databases. Students who completed the workbook as freshmen were beginning to find some of the skills they learned were out-of-date by the next semester. Also, a growing number of students not enrolled in English composition needed some way to learn the new technology and keep up with the changes. Upper level students, graduate students, new faculty, and community users did not have a formal mechanism for learning how to use the vast array of available resources.

With the development of the library Web project in 1994, most of the databases in the library, the online catalog, and the Internet were for the first time available from a single interface, the Carrier Library home page. The Web would provide a gateway to information and also serve as a flexible and powerful instructional tool (1) for all library users, something the print workbook could not do. The workbook would need to be replaced by a medium of instruction that could be easily modified, be effective in the new environment, and meet the needs of a larger population. A Web-based set of instructional modules would fulfill these criteria. Two hypertext models currently in use are PLUTO (2) at Cornell University and Gateway to Information at Ohio State University. (3)

General Education and Go for the Gold

At the same time Carrier Library was reevaluating the efficacy of the workbook, JMU was beginning to develop a new competency-based General Education program. This new program is based on learning objectives proposed by the faculty. Two of the program objectives to be covered in the Freshman year relate to information-seeking skills. These objectives, which were submitted by the library faculty and fully endorsed by the teaching faculty, require students to:

- Formulate and conduct an effective information search that includes a variety of reference sources, such as encyclopedias, library catalogs, indexes, bibliographies, statistics sources, government publications, and resources available on the Internet
- Evaluate information sources in terms of accuracy, authority, bias, and relevance

For the first time at JMU, information-seeking skills became a formal part of the General Education curriculum with all students in the program accountable for learning the skills. The new curriculum also stressed technology skills, such as electronic publishing and using computers to communicate locally and globally. Go for the Gold was developed not only to teach information-seeking skills to students in General Education, but also to help students learn how to use technology.

Development of Go for the Gold

Using the broad General Education objectives, reference librarians wrote specific objectives (<http://www.lib.jmu.edu/library/gold/infsk.htm>) and began to develop the 17 instructional modules that compose Go for the Gold. The modules stress concepts and strategies in addition to offering instruction on how to use a variety of traditional print sources, electronic databases, and the Internet. In addition the modules contain a strong emphasis on evaluating information. The list of instructional modules is available here (<http://www.lib.jmu.edu/library/gold/modules.htm>).

Every member of the Reference Department contributed to the project. While some of the material could be borrowed from the library skills workbook, the librarians found that the material in the print workbook did not translate well into hypertext. Much of the text had to be created specifically for the new medium. The Coordinator of Library Instruction (first author) coordinated the project and edited the modules for consistency and clarity. The modules contain instruction on concepts and skills using graphics and

hyperlinks to relevant databases and Internet sources. In addition, each module includes one or more assignments that faculty may wish to give their classes to insure that students learn and practice the skills presented. Two modules include self-tests that allow students to assess their own mastery of the skills.

Support staff assisted with the project by taking digital photographs, creating graphics, developing a consistent format, and organizing files. While the modules were still in draft form, support staff and student assistants tested them and provided useful feedback.

Although the modules were developed primarily by the Reference Department, teaching faculty were consulted to make suggestions on the content of the modules and on the accompanying assignments in particular, since they would be making the assignments to students. The Coordinator of Freshman English, members of the General Education Committee, and faculty from departments that will be teaching the new General Education courses provided input.

Implementation

The initial development of Go for the Gold took about 6 months. During Summer, 1996, the modules were posted on the University Web server and made public. A prominent link to Go for the Gold (<http://www.lib.jmu.edu/library/gold/modules.htm>) was placed on the Carrier Library home page, making it easy to find the program. Librarians made presentations to faculty explaining how to use the modules and assignments.

In Fall, 1996, several courses were being piloted for the new General Education program. All the pilot courses agreed to use Go for the Gold to teach students the information-seeking skills component of the General Education program. In addition, the English Department, in the absence of the library workbook, required all the faculty teaching English composition to use Go for the Gold.

Early in the semester, a number of English instructors reported that they did not have sufficient familiarity with the Web to feel comfortable assigning students to use Go for the Gold. Some also noted that they did not have networked computers in their offices, making it difficult to explore the modules and integrate them into their classes. Given these circumstances, several instructors simply told their students to go to the library and read Go for the Gold without providing an assignment for its use. Others gave assignments that accompanied the modules. Still other instructors did not require students to use Go for the Gold or do any assignments, preferring instead to lead their students to the library and give them tours.

Even though information-seeking skills have traditionally been taught in English composition, faculty from numerous other departments took the initiative to use the program as a way to acquaint their classes with resources in the library and on the Internet. The visible link to Go for the Gold actually served to promote its use across the curriculum. At this time, however, we have no way of measuring the extent of this type of usage.

Training and Resource Issues

Early in the Fall semester, it became apparent that the success of the Web-based instruction program rested on the ability of the faculty to introduce students to the modules and make assignments that would help students learn the desired skills. Although the University provides excellent computer access to students through numerous well-equipped labs across campus, many faculty in the English Department do not have adequate hardware, software, and network connections to use the World Wide Web. Using money allocated for the new General Education program, the University administration purchased and networked 5 computers for the English Department to give instructors an opportunity to learn the skills presented in Go

for the Gold. The administration also provided funding for 10 English faculty to participate in a 10-week Go for the Gold training program that included learning how to use the technology to find information, as well as planning appropriate assignments. This training was conducted during the Fall and Spring semesters by the English liaison librarian. Brief one-hour training sessions were also held for Speech Communication faculty who will be teaching General Education courses when the new General Education program is fully implemented.

Evaluation

After a semester of using Go for the Gold, our initial evaluation is very positive. In fact, the program generated a great deal of enthusiasm. Faculty in History, Human Communication, English, Integrated Science and Technology, and Business have said they have found Go for the Gold to be a useful teaching tool. They commented favorably on:

- the organization and content of the modules
- the currency of the information presented
- the fact that instruction is available to students 24 hours a day, 7 days a week
- the possibility that students can use Go for the Gold from outside the library
- the availability of this form of basic instruction to all classes, not just freshman English
- the ease with which they can integrate the modules into their courses.

We anticipated that Go for the Gold would be used by all sections of English composition, fully replacing the function of the library skills workbook. Actual use was not as high as we expected. We now realize that the transition from a traditional workbook to a Web-based program will take longer than one semester. Whereas the library skills workbook was easy to assign students, faculty found it more challenging to incorporate Go for the Gold into their courses because they had to master the technology themselves first. A number of faculty used Go for the Gold effectively, but some others were uncomfortable with the new technology and did not know how to make appropriate assignments. We see the need for additional faculty training on technology and information-seeking skills. The librarians will also need to work closely with faculty to help them integrate the modules into their courses through development of appropriate assignments. Both of these goals can be accomplished through Carrier Library's liaison program with the academic departments.

Some faculty have reported that they would like to have had equipment in their classrooms that would allow them to demonstrate how to navigate the Web and use Go for the Gold. Others have said they would like their students to have had at least one hour of instruction with hands-on experience to prepare them to use the modules independently. Byers and Wilson reported a similar need for hands-on help. (4) As the University moves toward equipping more classrooms with a networked computer and projection panel, faculty will be able to give demonstrations. Increasing the number of computer labs available for instructional use will also provide opportunities for direct experience with Go for the Gold.

The librarians have already seen a number of advantages to the Web-based instruction program. It has proved to be easy to update and keep current in our rapidly changing environment. With the widespread availability of the modules, instruction in information-seeking is being integrated into courses across the curriculum. Students can use the modules when and where they need them. As students use Go for the Gold, their technology skills improve along with their information-seeking skills, thus meeting an important goal of the new General Education program at JMU.

Future Plans

Our evaluation of Go for the Gold pointed to the need for Carrier Library to train faculty in the use of the modules and assist them in integrating Go for the Gold into their courses. We plan to focus our efforts on these tasks during the next year. Liaison librarians will work with faculty in their academic department to provide this training and assistance.

One of the advantages of a Web-based program is its adaptability, but to make use of this requires an ongoing commitment of staff time. Internally, a management team composed of two librarians and a library assistant will plan for improvements and changes in the program, including upgrading the appearance, designing a method of student evaluation, publicizing the modules, and training faculty to implement them successfully. A library assistant will perform routine maintenance, and the Coordinator of Library Instruction will edit the modules for content.

To help motivate students to learn the concepts presented in the modules, we plan to develop additional tests that students can take interactively on the Web to help them determine whether they have learned the concepts presented in the modules. These tests will employ HTML forms that can be scored electronically with immediate feedback reported to the student.

During the next year, we plan to assess student learning and attitudes by use of the Technology/Information-Seeking Skills Test developed by librarians at Carrier Library. This instrument, which is based on the objectives used in the development of the modules, will be administered to entering freshmen and second-semester sophomores. These data will provide information about how well students are learning basic information-seeking and technology skills in the General Education program.

After a semester of using Go for the Gold as the primary method of basic instruction, Carrier Library prefers the Web medium over the print workbook used for over 12 years. This method taps the real power of technology by integrating instruction, sources, media, and computing. (5) We have concluded that the Web is the best available approach for instructing a wide range of users in the current dynamic environment.

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NOTES

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