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Integrating Classroom and Library Instruction: A Cooperative Effort to Improve Student Term Paper Quality

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Abstract

Two sections of a service crop science class (CSES 3444-World Crops and Systems) were given extra credit to participate in a one hour workshop on library sources and databases. The librarian and classroom instructor planned the session. There was an emphasis on publication identification and retrieval of resources, as well as searching capabilities of the on-line public access catalog and CD ROM searching of agricultural and weather-related databases. The climate and weather CDs were demonstrated with emphasis on data acquisition and use. Participants completed an evaluation instrument (survey) at the end of the workshop. Statistical analysis showed no significant differences in student assessment when compared by year in college, gender, or academic major. An overall evaluation of the workshop of 4.25 on a 5 point scale was given by the students with a unanimous recommendation that this activity be continued and extra credit given for participation. This model could be used by others to encourage library literacy, introduce students to library databases, and ultimately improve the quality of student papers.

Introduction

Virginia Tech's University Libraries established anew program, the Collegiate Librarian and Information Officer (CLIO) Initiative, designed to increase usability of the library for colleges and departments within the University. This program involves a physical presence of a CLIO housed within the college, usually with office hours each week. Within the College of Agriculture and Life Sciences, the CLIO attends the monthly meetings of the Associate Dean and Director of Academic Instruction and

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the Undergraduate Co-ordinating Counselors, encouraging collaboration between academics and library services. An added benefit has been higher accessibility of the librarian and the library to undergraduate students and their instructors. This paper addresses an activity encouraged by this initiative.

Employers put written communication at or near the top of a list of the most desirable attributes for hiring (Blezek and Dillon, 1991; Hansen et al., 1989; Harris, 1989; Neal et al., 1991;Radhakrishna and Bruening,1994). With considerable pressure being placed on faculty to make courses more writing-intensive, helping students find and access information to encourage effective writing becomes important. Software search features and global computer databases can greatly simplify and facilitate literature search and data acquisition.

Library-use skills were incorporated into a large agricultural history class in the fall of 1995. The librarian presented the resources available in the library as a classroom presentation. A series of office hours at the library were established so students could work with the librarian individually. This was unsuccessful. Since there was no required assignment, few students took the opportunity to visit the library and learn about the resources available.

A review of the bibliographic instruction literature helped provide the framework for a new, more focused initiative. A more subject-specific class on information acquisition and retrieval was developed.

Literature Review

Bibliographic instruction is usually conducted as a "one-shot" session. The librarian may never see these students again, so class structure is important. Sessions should be focused, utilizing many instructional methods to maximize hands-on experience. This allows students to deal with a manageable amount of information and to see the relevance of the material presented (Allen 1989). The instruction should be related to the students' assignments or projects (Leighton and Markman, 1991). In some cases, just using sample searches with similar topics is enough. In others, the instructor might want to have students actually conduct their research during the session.

LaGuardia (1992) suggests a major problem with undergraduate bibliographic instruction is librarians teach what they think should be taught, not what students want and need to learn.

Students want to learn how to navigate the building, the OPAC (on-line public access catalog), and various CD-ROM indexes. Incorporating a discussion of choosing appropriate search terms into a hands-on demonstration of a database is more effective than interjecting it between subject headings and indexing

theories.

Probably the most successful way to enhance library instruction is through participation by the classroom instructor. Cooperation between the librarian and the course instructor enables instruction to be more meaningful (Leighton and Markman, 1991). Team-teaching, for example. is beneficial on many levels (Haque and Bradshaw, 1986). Having the instructor participate during the session lends a credibility and importance to what is being taught. An additional benefit to team-teaching is the value that another point of view can add. Who better to answer a question about the assignment than the person who wrote it?

Simon (1984) suggests there are many benefits for the librarians, as well as the faculty member with whom they are cooperating. Collaborating with the instructor can help the librarian gain a better understanding of the assignment, as well as the discipline. Faculty members gain a better understanding of library research, not only for their own research, but also the strengths and weaknesses of library resources needed by the students to successfully complete the assignment. Faculty/librarian collaboration can result in better developed assignments, more focused instruction, and consequently, less "library frustration" and the possibility of better student work.

Materials and Methods

Two sections of CSES 3444 (World Crops and Systems) with a total of 78 students were involved in the project. Students taking this course represented a cross section of academic levels and departments, and selected CSES 3444 as an elective. All students were required to write a term paper that describes a new or modified cropping system for any part of the world. The paper involves identifying a problem and proposing its solution. Identification of a problem, an evaluation of climatic and edaphic conditions, and a new or modified cropping system to address the problem made up the 10-15 page paper. The paper was prepared using the American Society of Agronomy style format. . In the past, students complained they had trouble finding enough information, especially when they were dealing with developing countries. Paper references have drawn heavily on texts and to a much lesser extent the periodical scientific literature. Few papers included any of the more sophisticated climate or weather information available electronically, and few students were able to effectively search current literature.

To address these problems, the faculty member and CLIO planned the following library use class: In order to keep library class sizes to a minimum, each of the two sections was divided into thirds by the alphabetized class roll. This resulted in six sections of 10 to 12 students each. Each group was assigned a specific library time and date. In lieu of one of

their normal lab periods, time was made available for the library class. Six sections of the same class on data identification and retrieval were taught over a three-week period. As an incentive, each student participating received an extra 20 points, about a 5% bonus on their semester grade.

Team-teaching allowed both the instructor and librarian to be present at each of the six class sessions. The librarian was the primary instructor, supported by the classroom teacher when appropriate. As an introductory step, each student was given **The Undergraduate Guide to the Virginia Tech University Libraries** which reviews policies and procedures of the libraries and includes maps of each floor. They also received a short presentation on the role of the librarian, her office hours both in the college and in the library, a brief overview of the University Libraries, and a detailed handout that outlined databases and offered suggestions discussed in class.

The librarian led the students through a sample literature search patterned after the students' assignment using alley cropping in Nigeria as an example. Each data search involved a different student demonstrating the resource, allowing hands-on experience.

The first resource used was Virginia Tech Library Systems (VTLS) to locate books and other publications mainly for country and crop background information. The group then moved to an article search on the country/crop system using electronic databases, AGRICOLA (National Agriculture Library) and CAB Abstracts (CABI). A discussion on identifying an index, how it is used, and the components of a citation/record was included, as well as the importance of choosing the correct key words for the search. The next step was to locate a periodical identified in the database search by determining the full title of the journal. Using the **List of Journals Indexed in AGRICOLA**, and

VTLS, location of the periodical was found. The next databases introduced were **Global Climate and World Weather Disc**. Specific country (Nigeria) data were accessed and tabular and graphic data were displayed. Integration of growing season, rainfall, and cropping systems was discussed by identifying a specific in-country location and reviewing the long-term climate data.

In all cases, students were encouraged to participate in both data search and discussion. The simple how-to-do for each database was explained. An offer for further individualized assistance was made by the librarian.

A survey to evaluate the orientation was prepared and presented to the participating students. This survey instrument collected data assessing the value of the activity, and obtained demographical information as to class, gender and major. The results of this survey were compiled and analyzed with MANOVA (Multivarient Analysis of Variance) procedures using a significance level of .05 (Table 1). MANOVA was used because of the nature of the survey and evaluated differences in perception by class, gender, and major.

Results

Of the 78 students in the class, 56 students attended the sessions and 49 completed the questionnaire. The students included 1 freshman, 10 sophomores, 20 juniors, 17 seniors, and 1 graduate student. All respondents were pleased with the extra credit, and were unanimous in their recommendation that this activity be continued in future classes. When presented with a choice of 1-5 on the relative value of the activity, with 1 being no value and 5 being highly valuable, the average response was 4.25 (Table 1). There were no differences in student perception of this workshop when grade level, gender, and academic major were compared. The model presented here seems to be relevant to a broad cross section of students.

Table 1. Composition, recommendation, and evaluation of CSES 3444 class members completing the survey on the library orientation class.

Class	Gender		Credit for Activity		Continue Activity		Evaluation	
	Male	Female	Yes	No	Yes	No	1-5 (highest)	
Freshmen	0	1	1	0	1	0	4.00	
Sophomore	5	5	10	0	10	0	4.30	
Junior	9	11	20	0	20	0	4.30	
Senior	6	11	17	0	17	0	4.12	
Grad	0	1	1	0	1	0	5.00	
Total	20	29	49	0	49	0	4.25'	

'Overall mean of the 49 students completing the survey.

Summary

This was a positive experience for students. Students were generally pleased with the activity and were nearly unanimous in recommending it for future classes. Most of the negative feedback indicated they would like more time and opportunity to digest the information. Unfortunately, only 70% of the class chose to participate and receive the extra credit. This might suggest that this become a required activity rather than a voluntary one. The coordinated effort between librarian and classroom instructor is an effective way to bring students into the library and bring them up to speed with the new databases and technology available for information acquisition and utilization. Although this paper does not address term paper improvement as there was no control group, the impression of the instructor was that the paper quality improved, and the quality of references and diversity of sources appeared to be much better in the 1996 papers than in those of previous years. To further facilitate student involvement, complete hands-on access to all resources presented would be desirable. Another addition would be the inclusion of Internet searching. However, this would take additional class time to accomplish.

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A Summary of Intercollegiate Judging Activity, Funding and Philosophy

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Abstract

Fifty-one universities with agricultural programs were surveyed to determine the degree of support for intercollegiate judging programs. Thirty-nine surveys were returned for a 76.5% response rate. Of the respondents, 84.6% sponsored at least one judging team related to animal agriculture (livestock, dairy, meats, horses, meat animal evaluation, and wool). The average annual expenditure for judging teams, salaries excluded, was $10,950. Annual expenditures ranged from $2,500 to $25,000. Sources of funding were highly variable with departmental funds, on average, comprising the majority (45.4%). While respondents did not favor increasing the number of team members participating in each contest, a majority was in