Provost's Learning Innovations Grant for Faculty
Request for Full Proposal
2000-2001

Please send your completed grant proposal (4 pages, plus attachments), one original and eleven copies, to
Linda Banford, 4000 Eastman
by 4:30 p.m.
Monday, March 6, 2000.
No hand written proposals will be accepted.
Notification of awards will be made by Monday, April 17, 2000.

Project Title:

Using the WEB to Create a Virtual Statistical Consulting Experience

Applicant:

Name: __ Thomas B. Barker ____________________________ Telephone: __ 475-6005 __

Department: _____ CQAS _______________________________ College: ____ COE _______

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Using the WEB to Create a Virtual Statistical Consulting Experience

Summary of Project

Using hyperlinks in an animated game-like environment, students will be given the opportunity to make “minds eye” excursions into the world of statistical consulting on their own computers. This project will find the appropriate software to create these scenarios. Such software will enable the outcomes to vary depending on choices made by the student during the consulting journey. This experiential learning will give such MS degree students in Applied Statistics a head start in their real world endeavors that involve consulting at their companies or if they choose to become independent consultants in this field.

Targeted Students

Each year the John D. Hromi Center for Quality and Applied Statistics offers a course, “Statistical Consulting” in the Spring Quarter. This is an elective for MS degree students in the Applied Statistics Program. In past years the enrollment has varied from a maximum of 10 to the current level of 3 for the Spring 1999-2000 academic year.

Anticipated Impact

The current virtual consulting experience was created originally during the course design and uses Persuasion® as the medium of presentation on two ancient Macintosh computers that are housed in the Mason E. Wescott Computer Lab in the CQAS building. Unless students in the course have Macintosh computers of their own (most have only “WinTel” machines) they must work at the computers in the lab. Besides the necessity of learning a new computer interface (although Mac is rather intuitive), the students cannot work on such an extensive project in the leisure of their homes where most assignments are carried out. Having the consulting experiences on the WEB frees them of computer platform dependencies and allows an “any time - any place” atmosphere that can release them from the inhibitions of the lab.

Measurement of Impact and Reporting

Since I have been teaching the course for a number of years, I have data on the outcomes of the virtual projects and the student’s comments found on the “evaluation of teaching” forms. Using this history as the control group, I will compare the new WEB-based group for grades on the project as well as comments on the evaluations.

CQAS has had “Faculty Forums” and I would report my methods and findings at such a gathering of faculty. I would also offer to make a similar presentation to the assembled faculty of the Institute with a more general (less statistical application) example of the WEB approach. This could be done at a future FITT.
A rationale for this project, as it ties to the intent of the grant

a. Why it is not part of regular college business? Using the WEB or the Internet for teaching is a new and unsupported activity in CQAS. For the most part, any professor who does this is doing the job on his or her own time and for the fun of the experience or to be the “first on the block.” There are no development funds available from ordinary sources to allow the exploration of this approach. In fact, there are few if any funds available to develop new courses or improve old courses outside of the DL format which has been funded by Gleason Grant monies.

b. The relevance to department competencies is often discussed in CQAS faculty meetings where we lament the fact that our graduates often flounder when given a real-life type of problem. The consulting experience will overcome this deficiency. It has been suggested that the Statistical Consulting course become a “core course” in the MS program. In that case, having a portion of it in the Internet medium can only enhance its presence in the growing Distance Learning offering of this MS program.

c. This project is relevant to other faculty who are attracted to the WEB as a teaching tool. I have been successful in making the transfer my success in the DL format to other faculty in CQAS and suspect that can also be done with this new technology.

d. I have participated in the WML sponsored workshops on Dreamweaver® WEB page development (both introduction and advanced). I have developed an extensive WEB site with both academic and personal (I want my students to know I’m a real person) entries. I have been a contributor to the American Statistical Association (ASA) section of Statistical Consulting and contributed to and reviewed the most recent book on the subject. I created the current “minds-eye” exercises in Persuasion® from my actual consulting experiences.
Timetable

April, 2000  (Unfunded) Make contacts in ETC and investigate appropriate computer software.

May, 2000 (Unfunded) Get trial copies of software and evaluate for suitability.

June, 2000  Order appropriate software and begin project.

July-August, 2000 Complete one scenario.

September - November (Fall Quarter), 2000 Complete second scenario

December - February (Winter Quarter), 2000-2001 Complete second scenario

March - May (Spring Quarter), 2001 Use in Statistical Consulting class.

June, 2001 Perform evaluations, write report, and prepare presentation for faculty.

TBD: Submit paper for inclusion in ASA meetings.