

COAFES TELworks: Smoothing the Path

The Players: Ann Hill Duin, Assoc Dean, COAFES

Abel Ponce de Leon, Head, Animal Science

Tom Michaels, Head, Horticultural Science

Tonu Mikk, Information Technology Professional, COAFES

Paul Brady, Coordinator Instructional Computing, COAFES

Background. The fall of this year will represent the tenth anniversary of the release of NCSA Mosaic, and the birth of the popular explosion of the WorldWideWeb¹. We have been delivering courses online for somewhat in excess of 9 of those ten years². With this experience, we would assert that the development of an online class requires no more effort than the development of a standard course with the obvious benefit that students will feel that interaction with the instructor is significantly enhanced, and, depending on the specific desire of the instructor, that student-to-student interaction can be significantly better than within the context of a face-to-face class of the same size³. Given that we (College of Agricultural, Food & Environmental Sciences; *COAFES*) are home to the first web-based class, that development requirements need not exceed standard face-to-face course development requirements, that we have now had experience with literally thousands of students in the online setting and that the online class offers significant benefits to the students in their perception of the quality of interaction, why does the delivery of the online classes remain the purview of the innovator and, maybe, early developer?

We would argue that the instructorate in general remains largely on the outside looking in, daunted by limited time and a sense of the difficulty involved in converting a familiar face-to-face effort to the unfamiliar web-assisted, much less web-based course. While considerable central and, indeed, college resources exist for instructors, the underlying philosophy has been 'if we build it, they will come'. That is, we supply tools and training, but those who participate are largely self-selected. Recently, in an effort to meet the apparent shortcomings of this approach, TEL grants have introduced a mentorship component, where experienced TEL recipients commit, as part of their grant effort, to inform or train others. In an effort to accelerate the process, we propose here to employ our departmental technical support people in similar mode.

Within the context of student advising, we have implemented a distributed model of student advising and support. We retain a central college support, but with a corps of advisors who work within the various departments. This particular approach has proven very effective in meeting the specific needs of the students and we envision a similar model of distributed support of course development to meet the instructors' specific needs.

¹ NCSA Mosaic was released in the fall of 1993.

² FScN5111, Internet Skills for Biologists and Others was developed for limited use during the summer of 1994 and offered to the world in the fall of 1994. The course is still offered, greatly modified, as Rhet 3401.

³ We have been collecting student responses to the question of interaction for approximately 3 years as part of our online course evaluations. This gives us a sample in the multiple thousands. We have shared these data with the DMC and recently presented at the 2003 TOHE conference.

Hypotheses: This leads us to several testable hypotheses. The primary hypotheses are a) that more active intervention by persons experienced in use and abuse of online pedagogy would result in a change in the attitude of less experienced instructor and b) that development of more online courses would result.

Proposal: In 2002, COAFES participated a 'multi-college faculty survey' of 'experiences with educational technology at the University of Minnesota'. The survey instrument and summary data are available on the DMC web site⁴. Prior to initiation of the study, we will assess the current attitudes toward and use of online technology of the instructorate using a somewhat modified version of the instrument previously used. In addition, we will attempt to accurately census the existing population of web-assisted and web-based classes within the college. These surveys will be conducted on a yearly basis for the next three years. Within COAFES each department has, at the least, one person who deals with computer support (the typical hardware/software/network support) on a day to day basis. In addition, a number of departments have people who assist with specific projects relative to course development. We propose to select a subset of 3 departments (Animal Science, Horticulture and one additional department to be determined by lottery) of our total of ten. These departments represent 70% of the undergraduate student population in COAFES. From this group each department head will designate a course developer... a *TELTech*. In conjunction with the DMC we will provide training to the TelTech in both available technology and in online pedagogy. Through a series of seminars, classroom sessions and roundtable discussions that will include both the DMC experience as well as the specific college experience, we will train our TELTech trainers. The TELTechs will then visit with each instructor within their department both individually and through seminars relative to the available tools and the current thinking relative to online pedagogy. At the same time as TELTechs are supporting faculty, they will, in turn, be supported by monthly meetings to exchange problems and successes, and to provide continual exposure to information relative to University-wide initiatives and emerging tools and techniques to improve online delivery.

In short, this proposal contains six basic elements:

- A selected subset of our departments, at the nomination by their head, will put forward a TELTech
- COAFES in collaboration with the DMC will develop a specific training plan for the TELTechs (based, in part, on the current TA Web Certification program; approximately 25 hrs training). This training will emphasize pedagogy of online delivery.
- The TELTech will be committed to a minimum of 25% of their time in support of course development
- TELTechs will meet individually with faculty in their department to both learn of potential projects and offer their assistance
- COAFES will further support the community of TELTechs with monthly roundtables and seminars
- At yearly intervals we will formally assess outcome

Assessment: While we hypothesize that this model has merit, we are asking for an opportunity to assess impact. Our intent is to conduct this study of the effects of implementation of this model over a three year period.

In 2002, COAFES participated in the multi-college faculty survey. We intend to use these data, broken out for specifically for the COAFES faculty, as our baseline (summarized at <http://dmc.umn.edu/surveys/>). Using this same instrument, we will survey faculty attitudes just prior to implementation of the TELTech model across all of the departments in the college, recalling that only three of the departments will actively participate in the first year. We will then repeat the survey on an annual basis. In addition, we will take a census of existing web-supported and web-delivered classes within the college (by telephone and email; instructor-by-instructor). TELTechs will maintain contact logs for their faculty and other departmental contacts. In this way we can see what the reality of faculty contacts really is. How much time is involved in contact; how much time is spent in project development? Based on this contact information, we will assess faculty satisfaction with this approach. Through the medium of the monthly roundtables, we will also collect, formally, short written assessments from the TELTechs of their successes, failures, satisfaction with the program and developing needs for training or assistance.

Collegiate and departmental support: Rather than taking a more typical approach of proposing a single course or a couple of courses as our product, we are proposing to look at a different model of instructor support of course development. The expectation is that this distributed model of support will result in a change in faculty attitude with the production of more web-supported and web-delivered courses. We do not know that this is so, but since the college is firmly committed to exemplary education and since we firmly feel that such delivery schema contribute to this very desirable outcome, we are proposing to explore this shift in support model as a means to this end. To this end, each of the three TELTechs will be committed by their respective department heads to 25% of their efforts within this project.

In addition, COAFES is committing 10% of the time of Tonu Mikk (Information Technology Professional) for the organization and day-to-day supervision of the project and 5% of the time of Paul Brady (Coordinator Instructional Computing) to aid in COAFES specific curriculum development.

Timetable and Budget:

Preliminaries – we have met with DMC relative to feasibility of developing a training program. At start of funding, we would meet again to formalize

training needs and desires. Program development would occur during late spring or early summer. Monthly roundtables would begin at the same point. The training program would begin as soon as possible, but realistically should start in late summer or early fall of 2004. At the point that training begins, we would run the first survey of faculty attitudes. We would also conduct the census of existing web-supported and web-delivered classes at this time.

Each of the department heads has agreed to commit 25% of the time of a TELTech to this project.	
Provided by TEL Grant:	
Development and delivery of training 25 hrs	\$10,000
Provided as in kind by COAFES	
5% effort of Paul Brady	\$3,500
10% effort of Tonu Mikk	\$6,500
25% effort of 3 TelTechs	\$15,000 minimal

At the completion of initial training, and after the surveys, TELTechs, in their new role, would begin faculty contact relative to course development. The TELTechs would begin maintaining contact logs. We would repeat surveys at annual intervals.

Budget – We are requesting \$10,000 exclusively to develop a joint COAFES/DMC training program for the TELTechs and the COAFES support people. The match is provided in a combined salary salary of not less than \$25,000.

Sustainability: This program is certainly of interest to COAFES as a means to more rapidly move online development along. The increase of online delivery is something that we feel is of considerable value as exemplary education and clearly something we wish to see happen under our college compact. We believe that, after the initial educational program development wis DMC, COAFES will be able to maintain the delivery of training and retraining for current and future TELTechs. More importantly, we believe, should this model prove *out*, it is something that has value on an institutional scale. It could stand very comfortably in the armamentarium that would include the TEL Faculty Fellows and the TA Web Certification Program. To reiterate, should the program prove effective, the college (COAFES) would use this as the future and on-going model for our technology support of faculty.

Outcome Appendix:

Paul Brady (2002) Health and Wellness: An Integrated Approach to Classes Across Cultures And Curriculum.

Craig Hassel as PI. Project is on timeline and within budget. See <http://dmc.umn.edu/grants/2002/Hassel.pdf>

Paul Brady (2000) “Sports Nutrition Course” in conjunction with Linda Brady and Moira Doyle. Project was completed, resulting in “Sports Nutrition, FScN 1012” which has been drawing around 150 students per term since its inception in fall of 2000

Paul Brady (1999) “Evaluating the Tools of the Trade” evaluated a number of chat technologies for student support/discussion for class interaction. Interestingly, *Palace* technology was preferred by students. *Palace* is now largely defunct, but interesting study in that we saw that any technology would improve the sense of student-to-student interaction.