Technology, Teaching, and Learning at Xavier University of Louisiana
A Final Report to the Andrew W. Mellon Foundation, May 2007

Overview

In September 2001, the Andrew W. Mellon Foundation awarded a faculty development and technology grant to Xavier University and its Center for the Advancement of Teaching. This grant supported four aims or initiatives:

1. The Rich Media Projects Initiative
2. The Technology Infusion Projects Initiative
3. Technology Workshops
4. Two Research Initiatives
    i. Technology Training Center
    ii. Student Information Technology Certification Program

This report documents the activities supported by the grant, September 2001 – May 2007.

The Center for the Advancement of Teaching maintains a website which includes information about the technology initiatives, workshops, and faculty projects that are supported by this grant. The homepage for this website is at: http://cat.xula.edu

Rich Media Projects Initiative

The Center has promoted faculty creativity and innovation with information technology through an initiative which stresses ambitious goals and long-term planning. These *Rich Media Projects* aim to create websites and CD-ROMs that combine different types of media (e.g., text, images, video, audio, animation, databases) and allow for some degree of interactivity on the part of the user. As a rule, these are more ambitious projects than a faculty member might normally undertake without the support that the Center provides in the form of release time, stipends, reimbursement for expenditures and staff support.

The Process

A total of 15 Rich Media Projects were launched through a competitive proposal process. The plan was for each project to complete the following phases:

- Phase I – *Design*.. This Phase is key to the success of any ambitious project. A **design document**, a comprehensive plan that explains what the project is and how it will be realized, was developed. Phase I was the most challenging and critical phase of the entire project. The Center

has developed a standard template for such documents, and the Center's multimedia artist worked with the faculty members as they developed and refined their plans. The completed design documents are published on the Center's website.

- Phase II – *Implementation*. In the Implementation Phase, the project is transformed from design tgo reality. The design document provides the steps to be taken for this phase. The length of the implementation phase varied considerably from project to project, in most cases lasting for more than a year.
- Phase III – *Testing and Evaluation*. In this phase, the product was evaluated to see if it actually accomplished the goals set forth in the design document. A variety of techniques were employed for this purpose, such as surveys and usability tests; every project required a different evaluation strategy. Once again, the steps for this phase were specified in the design document. The final evaluation report for completed projects is published on the Center's website.

At the completion of each phase, the project was subject to critical review (by Center staff, Xavier faculty, and/or initiative participants) to obtain constructive feedback and to determine whether the project should continue to the next phase. As mentioned in interim reports, a fourth and final phase, *Continued Support*, was added. This Phase represents a commitment by the Center to provide ongoing service to successful projects. In this phase, the Center's multimedia artist continues to work with faculty members to make occasional updates and improvements to the project and perform maintenance as needed.

Phase I: Design

Design Documents were completed for 15 projects:

- AlgebraJamN—website
- BibleDudes—multimedia website
- Collage Culturel—multimedia website
- Gumbo LA-LA—website
- Haiku of Kobayashi Issa—website
- Interactive Taxonomic Zoology—interactive CD
- Kids to Afrika—website
- NEA/XU Literary Reading Series—website
- New Orleans UnMasked—website
- No Easy Poets—website
- The World Inside New Orleans
- Theological Perspectives of the Reformation—interactive website
- Thinker—CD-ROM
- Vive la Louisiane, un état pas comme tous les autres—CD-ROM

- Working in Clay—instructional DVD

Phase II: Implementation

Implementation was completed for 6 projects:

- Haiku of Kobayashi Issa
- No Easy Poets—website
- Gumbo LA-LA—website
- Vive la Louisiane, un état pas comme tous les autres—CD-ROM
- Interactive Taxonomic Zoology—interactive CD
- Kids to Afrika—website

3 projects remain active Work in Progress

- BibleDudes—multimedia website
- Thinker—CD-ROM
- Working in Clay—instructional DVD

Phase III: Testing

Project Evaluations were completed for 3 projects:

- Kids to Afrika—website
- Haiku of Kobayashi Issa
- Vive la Louisiane, un état pas comme tous les autres

Phase IV: Continued Support

The same three projects listed above have entered the final phase of the Rich Media Projects Initiative, in which support is offered on an as-needed basis to continuously develop and improve the project.

The preceding overview suggests how difficult and demanding of time and commitment multimedia projects can be. Of the fifteen projects for which Design Documents were completed, six have been implemented. In some

cases, faculty left the university, taking their projects with them. Hurricane Katrina in August 2005 changed the priorities of some participants, leaving projects unfinished.

Technology Infusion Projects Initiative

Faculty interest in using information technology in the classroom remains extraordinarily high at Xavier University. Of the faculty members who completed a technology survey in 2004, more than 80% indicated a moderate to high level of interest in incorporating computer technology in their classes. The Center's *Technology Infusion Projects Initiative* supported faculty use of technologies such as Blackboard (a web-based course management system), WebBoard (also a web-based conferencing system), course websites, videoconferencing, JSTOR and other on-line databases, and discipline-specific courseware such as simulations and CD-ROMs.

Project Phases

Each Technology Infusion Project consisted of two phases: (1) Planning & Development and (2) Implementation & Assessment.

Phase 1: Planning & Development

Center staff assisted faculty in exploring pedagogical and technical issues, identifying project outcomes, developing means for assessing the projects' affects on teaching and student learning, and seeking solutions to problems while inspiring faculty productivity and innovation. Shared learning and collaboration resulted from faculty meeting and discussing projects throughout the funding period.

Phase 2: Implementation and Assessment

During this phase, faculty participants implemented the technology into their courses and assessed the impact of the technology on teaching and student learning. At the conclusion of this phase, faculty reported on the project outcomes and the assessment results.

In the period covered by the grant, 17 projects were successfully implemented and assessed:

- A New Approach to CHEM 3210: Quantitative Analysis
- Classroom Education and Demonstration System for Digital Communications
- Course Website for Theories of Personality (PSYC 4010)
- Development of Interactive Homework Questions for General Biology 1230 and 1240.
- Electronic Distribution List in a Poetry Workshop
- Identifying and Developing Internet Resources for "Environmental Issues in Christian Perspective" (THEO 3800) Course
- Integrating Bootstrap into Statistics
- Morality and Business: An Impossible Relationship?
- PowerPoint Infusion into Experimental Psychology (PSYC 2020)
- Teaching, Technology, and Environmental Biology
- The Integration of Video Clips in an Articulation Disorders Course
- Use of Animations to Enhance Teaching in General Biology 1230
- Use of Blackboard for Reinforcement of Biology Definitions

- Web Based Computer Lab Component for Calculus III
- Infusing Blackboard into an Introductory Research Course
- Enhancing Student Learning in CPEN 3310, Embedded Systems Course with Field Programmable Logic Arrays
- CAI-based Developmental Mathematics

Technology Workshops

In the period of the grant, the Center has hosted a number of technology-related workshops, including:

- PHP: Hypertext Preprocessor: An Introduction to PHP
- Blackboard Training: Basics and Beyond
- Teaching Well With Technology: An Overview of Technologies for Teaching and Learning
- Electronic Classroom Orientation.
- Educating the 'Netgen': Strategies that Work--teleconference
- Blackboard and Learning: A Discussion of Creative Uses of Blackboard Across the Disciplines
- E-Moderating: Developing and Managing On-line Discussions
- Creating Engaged Learning Environments for Today's Students: A Live Teleconference for Faculty and Administrators
- Webcast: A Live, Interactive Videoconference
- Searching and Thinking: Inclusion of Library Resources in Teaching
- Library Tips: Inclusion of Library Resources in Teaching
- Feeding Frenzy: Or, what are those little orange XML buttons?
- Wiki Wiki: What in the World is a Wiki?
- Blogs and the Blogging Bloggers Who Blog Them
- CAT Colloquium: Media and Methods: Technology Initiatives
- CAT Colloquium: Rich Media: Using Technology to Enhance Learning
- New Features of SMART Board
- Teaching with SMART Board
- Introduction to the Electronic Classroom
- Electronic Conferencing: WebBoard Conference Review
- Introduction to BlackBoard
- The WebBoard Primer
- Redesigning the Xavier Website
- How PowerPoint Made Me More Interesting
- Extensible HyperText Markup Language
- Classroom Tools: Student Response Devices
- Extensible Markup Language
- Blackboard and Learning: A Discussion of Creative Uses of Blackboard Across the Disciplines
- Faculty Videomakers at Xavier

- SMART Board Training
- Introduction to the Electronic Classroom
- WebBoard Training
- E-Moderating: Developing and Managing On-Line Discussions
- How the Web Works: Using BBEdit
- How the Web Works: Using Homesite
- How the Web Works: Introduction to Html
- Teaching and Technology at XU: A Three-Part Series on Issues Related to Teaching with Technology
- Teaching Katrina: Video Interviews of Faculty

Two Research Initiatives: The Technology Training Center and Student Information Technology Certification Program

Technology Training Center

In October 2002, the Technology Training Center Focus Group was constituted and included 10 members representing the teaching faculty, administration, Library faculty, staff, and students. The group completed the following:

- Compiled and analyzed the results of the student IT survey that was conducted in April 2002;
- Compiled and analyzed the results of the faculty IT survey that was conducted in August 2002;
- Obtained data relevant to the University's computer competency assessment of freshmen students;
- Developed models and corresponding budgets for a Technology Training Center at the University; and
- Developed implementation plan(s) for the proposed Technology Training Center.

It was later determined that it was not feasible for the University to develop the Center at that time. Hurricane Katrina, which flooded the entire campus, forced the Center for the Advancement of Teaching to reorganize its priorities as it moved forward.

Student Information Technology Certification Program

In September 2002, the Information Technology (IT) Certification Working Group was formed. It was comprised of five faculty members, one administrator, one Library faculty member, two staff members, and two students. The initial work of the group was to collect and analyze data that allowed it to determine if there was an interest in and/or a need for a student IT certification program. It was also determined that the implementation of this initiative would not be feasible,

Scholarship

The support provided to Xavier's faculty and staff by this faculty development and technology grant has resulted in many tangible products, such as new course materials, CD-ROMs, and multimedia websites. In addition, several faculty and staff members have given presentations about their grant-supported work at professional and scholarly conferences. Below is a list of the presentations made during the period covered by the grant.

- Dr. Nitsa Rosenzweig (Chemistry), Mr. Yamlak Tsega (ITC), Dr.Gayna Stevens-Credle (CAT), and Dr. Marion Carroll (Chemistry) presented a pre-conference workshop "Electronic Classrooms: Instant Feedback to Bioinformatics" at the 11th Annual American Society for Microbiology Conference for Undergraduate Educators held at Xavier University of Louisiana in May 2004.

- Dr. Michael Homan (Theology) and student Roy DuBose (double major in Biology and Theology) presented a paper "The Tabernacle: Historicity and Context" at the American Schools of Oriental Research Regional meeting in Irving, Texas in March 2004.

- Dr. Mark Gstohl (Theology) gave two papers at the Southwest Commission on Religious Studies 2004 Meeting of the American Academy of Religion held in Dallas in March. The papers were: "Muriel Lester: Social Activist, Peacemaker, Theologian" and "The Contextual Theology of Muriel Lester."

- Dr. Andrea Edwards (Computer Sciences and Computer Engineering) published a paper titled,
  "eLearners Must be Full-time Learners" in the peer-reviewed International Information Resources Management conference in New Orleans, in May 2005.

- Dr. Michael Homan (Theology) submitted his website, BibleDudes, to MERLOT for peer review.

- Dr. Michael Homan (Theology) and Ms. Whitney Davis (Theology undergraduate student) presented a paper entitled "BibleDudes and Blogging: Technological Applications in Teaching Biblical Studies and Biblical Archaeology" at the American Schools of Oriental Research conference held in Dallas in March 2005.

- Dr. Elliott Hammer (Psychology) delivered the invited keynote address, "What I've Learned: Lessons from a Career as a Minority in the Classroom," at the Southeastern Conference on the Teaching of Psychology held in Atlanta in February 2005.

- Dr. Vlajko Kocic (Mathematics) gave a presentation titled, “Multivariable Calculus with DPGraph” at 17th Annual International Conference on Technology in Collegiate Mathematics held in October 2004.

- Dr. Todd Stanislav (Biology and Center for the Advancement of Teaching) gave a presentation titled, “Haiku, Gumbo, and the Minor Prophets: Three Case Studies of Faculty and Student Uses of Technology,” at the Southern Education Foundation's Instructional Technology Assistance Project conference held in Atlanta in October 2004.

- Drs. Tony DuRapau (Mathematics) and Todd Stanislav (Biology and Center for the Advancement of Teaching) gave a presentation titled, “Faculty Participation in the Center for the Advancement of Teaching, 1998-2004: An Application of the Chi-square Probability Distribution” at the Mathematics and Statistics Colloquium. The Colloquium was hosted by Xavier University’s Mathematics Department and held in October 2004.

- Dr. Mark Schlueter (Biology) and Bart Everson (Center for the Advancement of Teaching)
  demonstrated a CD-ROM titled “Interactive Taxonomic Zoology” at ED-MEDIA 2003.

- Bart Everson (Center for the Advancement of Teaching) gave a presentation titled, “The Rich
  Media Projects Initiative at Xavier University of Louisiana” at ED-MEDIA 2003.

- Dr. Todd Stanislav (Biology and the Center for the Advancement of Teaching) gave a presentation at a workshop titled, “Best Practices in Faculty Development” at the 9th National HBCU Faculty Development Symposium held in October 2002.

- Dr. Deany Cheramie (English) gave a presentation titled, “Multimedia Writing Instruction: It’s Not Just About Writing with Computers,” at the 2nd Annual University of New Orleans Academic Technology Forum held in March 2002.

- Dr. Gayna Credle (Center for the Advancement of Teaching) gave a presentation titled, “Electronic Environments and Communication,” at the 2nd Annual University of New Orleans Academic Technology Forum held in March 2002.

- Dr. Susan Fitch Spillman (Languages) made a presentation describing the development and implementation of a CD-ROM project at the 2002 joint conference of the Southern Conference on Language Teaching and the Louisiana Foreign language Teachers' Association. The CD-ROM, titled *Vive la Louisiane, un état pas comme tous les autres*, features video clips of

francophone Louisiana residents speaking in French about work responsibilities, family background, and other cultural tasks.

- Dr. Gayna Stevens-Credle (Center for the Advancement of Teaching) presented results from her content analysis research study, *Student Interactions in Electronic Conference Systems*, at the 2002 Teaching in Higher Education Forum in Baton Rouge, Louisiana.

Final Thoughts

The faculty development and technology grant from the Andrew W. Mellon Foundation provided a unique and valuable opportunity for Xavier's faculty to make use of technology for scholarly and community service projects, and to enhance teaching and student learning. No other resource on campus offered these kinds of technology-based initiatives that allowed faculty to develop teaching, scholarly, and community service projects with expert guidance. Furthermore, this grant made possible a host of technology-related workshops and brown-bag discussions, and provided faculty and students opportunities to give presentations about their projects at local and national conferences and symposia. The reach of this grant extended to Xavier's faculty and to the students they teach.

Hurricane Katrina's arrival in August 2005 affected the region, the city, Xavier University, and, of course, the programs and projects sponsored by the Center for the Advancement of Teaching and this grant. Several faculty members engaged in TIP and Rich Media projects did not return to Xavier after Katrina, and the director of the Center left the University in the year after the storm.

On the positive side, many of the faculty who remain developed their understanding and expertise in applying technology to teaching through projects supported by this grant. Our present disaster plan calls for all faculty to be prepared to switch their classes to an online format, via Blackboard, in the case of future disasters that close the University for a week or longer. Thanks to the grant support provided by the Mellon Foundation, many faculty are already proficient with web-based teaching and learning—and serve as resource persons for colleagues.

The Center for the Advancement of Teaching remains committed to the Rich Media initiative, begun with the support of this grant. In the current academic year, 2006-07, it continues to support three ongoing projects, begun pre-Katrina, and one new project, begun in the fall of 2006.