CALIFORNIA COMMUNITY COLLEGES
AND
MT. SAN ANTONIO
COMMUNITY COLLEGE DISTRICT

#92-0015
**Interactive Technology Integration**

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<th>FISCAL YEAR</th>
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**FUNDING CATEGORY & AWARD**

- **Grant = $10,000**
- **ELIGIBLE PROGRAM**: A --- Nontraditional Instruction
- **PROJECT CATEGORY**: Developmental Model

**PROJECT PRODUCT**

- **PROJECT TOPIC #1**: Computer Technology
- **PROJECT TOPIC #2**: Inter-Disciplinary

**PROJECT DIRECTOR**

- Virginia L. McBride, English Professor

**PROJECT SUPERVISOR**

- Stephen Runnebohm, Dean Humanities/Soc. Sci

**PROPOSAL DESCRIPTION**

This proposal is a grant request. This project proposes to aide faculty to integrate non traditional forms of instruction into curriculum offerings. The project intends to improve retention, particularly of under-represented extended-day students who face obstacles to their learning. The project proposes to develop a resource manual and develop a follow up component to tract the project for three years. The project will prepare a detailed document design, conduct research, develop a staff development training model, pilot test five interactive applications and produce the resource manual.
Interactive Technology Integration

In the short term, the planned project "Interactive Technology Integration" focuses on aiding Mt. San Antonio College faculty in integrating non-traditional forms, contents, and methods of instruction into curriculum offerings. In the long term, the project intends to improve retention, particularly of under-represented extended-day, students who face obstacles to their learning. Hence, two objectives compose the project. One, "Develop a User's Resource Manual" involves the completion of five activities: 1) Prepare a detailed document design; 2) Conduct needed research; 3) Develop a staff-development training model for, at least, 20 faculty; 4) Pilot test, at least, five interactive applications and/or prototypes; and 5) Produce the manual. Two, "Develop a Follow-Up Component to Tract the Project for Three Years," involves the actual design of the component to describe all monitoring steps and issues, all updating aspects, and all follow-up training.

In addition to the manual and the follow-up component, the accomplished objectives will stimulate non-project faculty to integrate interactive technology, an integration that will produce a steadily increasing retention rate and will change the interactive, faculty/student learning process. Moreover, Mt. San Antonio College's wanting to be perceived as an educational technology leader guarantees continued support; and Mt. SAC's willingness to serve as a technology demonstration site guarantees that the College will assist potential project adapters. To evaluate the project, the involved individuals - faculty, students, and campus committees will describe all methodology including problems encountered and modifications needed.

Upon the project's completion, the user's resource manual will be given to all active participants and the document describing the follow-up component will be distributed to all significant decision makers on campus. An abstract of the project's report will be distributed to community college advisors and decision makers statewide who may, in turn, request an electronic version (floppy disk) and all the project's deliverables.
Interactive Technology Integration

1. Specific Educational Program Being Addressed

SPECIFIC PROGRAMS/SERVICES BEING ADDRESSED

Of the eligible programs, this proposed project plans to focus, initially, on aiding Mt. San Antonio College faculty in integrating non-traditional forms, content, and methods of instruction (la of the six approved programs and services) into their curricular offerings. As an outgrowth of this aid, certain faculty will identify opportunities for independent study within the traditional environment (la-4) and others will develop systems that will establish communication systems which will allow newer clientele and educationally disadvantaged students to participate more fully in required course activities (ld and 1c). Of the Board of Governors Basic Agenda Priorities, this proposed project intends, ultimately, to improve the retention of under-represented students, especially those who encounter obstacles to classroom participation (2a-2).
2. Specific Problems Being Addressed

SPECIFIC PROBLEMS BEING ADDRESSED

In the extended-day program (classes from 4:00 to 10:00) at Mt. San Antonio College, enrolled students too frequently face the need to drop classes because of single-parent requirements, job responsibilities, transportation obstacles, and other similar problems. Faculty certainly want to retain the student but no systems currently exist to help the student through temporary, but extended, difficulties. Unfortunately, faculty are limited in the help they can offer to keep the student performing on schedule with his/her classmates. This long-range problem cannot be specifically addressed until the faculty really know what technological resources are available to them, how these resources operate, how to integrate selected resources into specific courses, and how to re-design courses and course materials for interactive learning. This proposed project intends to address the faculty issues as one step toward resolving certain problems related to retention. Even though this project focuses primarily on the extended-day program, the project's long-range benefits relate to all the College's students and faculty.
3. Population To Be Served

POPULATION(S) TO BE SERVED

Under the proposed project, 20 faculty teaching general education courses in the extended-day program will be the target population. The project will show them ways to use technology and interactive forms of instruction through which they can retain students who must, for example, change to a distance education environment because of a specific demand which is external to the requirements of a course. For instance, imagine the single-parent who must remain at home to care for an ill child. A telephone hook-up to the classroom from the student's home is certainly possible. As faculty become proficient with the available resources, a second population is served --- the extended-day student who faces unanticipated problems which interfere with the natural progress toward a degree. Of the 20 target faculty, 5 will be selected to develop applications and/prototypes for integration and testing within their own courses.
PROPOSAL OBJECTIVES

By June 30, 1993, the proposed project intends to accomplish two objectives. First, the project will develop a User's Resource Manual which, in approximately 50 pages, will (1) identify at least 10 different resources available to faculty and the capabilities of those resources, (2) explain step-by-step how to use each of the identified resources, (3) describe possible/tested uses of the resources, and (4) identify at least 10 faculty willing to serve as advisors to interested faculty and describe the advisors' capabilities. Second, the project will develop a follow-up component that will track the project for at least three years with annual up-dates to the manual.
5. Workplan Narrative

STATEMENT OF WORK

PERSONNEL INVOLVED:

Project Director (PD):
   Responsible for the overall accomplishment of the project's objectives, research, writing, and designing

Information Services Committee (IS):
   Responsible for all internal and external communication systems (both print and electronic) --- This committee will guide the project director in how to use these systems to their full capabilities and will contribute technical expertise to the training components and the application/prototype developments

Publications (PB):
   Responsible for production and distribution of both print and electronic versions of all end products of the project

Academic Information Technology Subcommittee (AcITS):
   Responsible for the integration of technology into the College's curricular offerings.

Staff Development Committee (SD):
   Responsible for the development and delivery of all training programs for faculty

Curriculum Committee (CU):
   Responsible for the overall supervision of the College's curricular offerings

OBJECTIVE #1: DEVELOP A USER'S RESOURCE MANUAL --- (Approximately 50 pages)

Activity 1: Prepare a Detailed Document Design
   Encompassing numerous tasks, this Document Design, will examine all user needs and will establish all aspects of research, document structure, visual design, writing, production, and distribution. This Design will describe front and back matter (preface, acknowledgments, glossary, index, etc.), headings and sub-headings, cross-referencing, illustrations, typography and page layout, graphics and tables, headers and footers, and packaging. In addition, this Design will contain guidelines for readability, organizational structure, and usage and will contain the official standard for resolving all questions of punctuation, capitalization, and style. This activity will be completed by the Project Director and by Publications with input and guidance from the Information Services Committee.
Activity 2: Conduct Needed Research

Three major tasks compose this activity. First, the designated project personnel (PD, AcITS, SD, CU) will identify at least 10 available resources and describe their respective capabilities. These resources will include both equipment and systems (1) already on the campus and those planned for the immediate future, (2) available in various community-based organizations and sites and (3) available in various business environments. The researched equipment will include telephones, computers, radio, television, and related peripherals such as videodisc players, modems, CD-ROM (compact-disc read-only memory) players, LCD (liquid-crystal-display) panels, and video projectors. The systems will include those which transmit interactive information via satellite, microwave, local-area computer networks, and wide-area telephone networks.

The second research task involves the designated project personnel (PD, IS, AcITS, SD) in determining the least complicated methods for using each of the researched equipment and systems. This research may, for example, determine a simple, low-tech procedure to show how an instructor could establish a small group telephone conference with students at a variety of locations or how an instructor might establish a broadcast voice mailbox into which answers to student questions might be placed and, in turn, be available to the students 24-hours/day and 7 days/week. For the more technologically sophisticated instructors, the research may determine a procedure for developing an interactive, learner-based, instructional module to be placed on a computer floppy-disk for the student to use at some non-classroom site. For the extremely sophisticated instructors, the research may determine a procedure for putting an entire course’s work on the campus’s main-frame computer for interactive access by both the remotely located student and instructor.

For the third research task, the designated project personnel (PD, AcITS, SD, CU) will determine procedures for re-designing entire courses or instructional materials within courses to make the best use of the researched resources --- both equipment and systems.

Activity 3: Develop a Staff-Development Training Model for, At Least Twenty Faculty

This activity involves four tasks. First, the designated project personnel (PD, AcITS, SD, CU) will establish the Model’s general purpose and describe the specific learning objectives. Second, the designated personnel will develop profiles of the intended learners. These profiles will include what the learners expect to learn, improve, or experience. Third, project personnel will describe the format and design of the training model. This third task involves the detailed description of what specific information will be transmitted and how that information will be transmitted. Attention will be given to back-up materials needed to match the learner profiles; the description of appropriate learning curves; the flow of information to permit participation, reaction, digestion, and
discussion; and the atmosphere, pace, and logistics of the training. Fourth, selected project personnel or specific vendors will conduct the training for, at least, twenty faculty who match the established learner profiles.

Activity 4: Pilot Test. At Least. Five Interactive Applications and/or Prototypes
Working with the designated project personnel (PD, AcIITS, SD, CU), 5 faculty who participated in the training or who previously have received training will be asked to develop a prototype project for their respective courses. Each project for development and testing must show how the equipment and systems selected for the project will be integrated into specific courses or class activities, how the interactions between instructor and students will be accomplished, and how the project will address a specific retention problem faced in the extended-day program. At least five of the developed applications will be pilot tested to identify any problems, obstacles, or unanticipated issues and to identify successes.

Activity 5: Produce the User's Resource Manual
The designated project personnel (PD, PB, IS, SD, CU) will produce the actual Manual which complies with the Detailed Document Design's specifications.

OBJECTIVE 2: DEVELOP A FOLLOW-UP COMPONENT TO TRACK THE PROJECT FOR THREE YEARS

This component, as developed by the designated project personnel (PD, AcIITS, SD, CU), will describe (1) all steps to be taken to monitor the successes and problems of the integration, (2) all up-dating schedules and tasks to be completed, (3) all follow-up training to be provided, and (4) all retention issues to be monitored.
6. Expected Outcomes

EXPECTED OUTCOMES

PROJECT OBJECTIVES
Objective #1 will produce a User's Resource Manual of approximately 50 pages which will guide extended-day faculty in establishing systems and methodology for overcoming obstacles to learning and to completing a particular course --- obstacles confronted too frequently by the extended day student. Twenty faculty will participate in a training program relating to the integration of technology into their respective course offerings. Of the twenty, five faculty will develop, test, and evaluate applications and prototypes for integration into specific courses.

Objective #2 will produce a plan for tracking the successes and problems of the project, for up-dating the Manual, for providing new/additional faculty training, and for monitoring retention in extended-day classes which have integrated the project's technology and training. Over the tracking period, additional college faculty will decide to integrate specific interactive technology into their courses. As a result, the tracking component should show a steadily increasing rate of retention in the extended-day program and should show a steadily increasing rate of technology integration throughout the College's curricular offerings.

Beyond the tracking period, the User's Manual should change in its content because older technologies will have progressively higher comfort levels for faculty. Similarly, because of new and emerging technologies which offer the potential for courses which could not exist without a particular technology, the User's Manual will continue to offer small steps toward a major change in the way that educational faculty and their students interact during the learning process.

IMPACT OF THE PROJECT
Mt. San Antonio College's extended-day faculty will more readily adopt interactive, technological systems to assist extended-day students to learn. Similarly, the faculty will add considerable flexibility to their courses, a flexibility that can provide methods and means for keeping extended-day students enrolled in courses and progressing systematically toward their educational objectives, particularly toward a degree and/or transfer to an institution granting a Bachelor's degree.

The project director believes that this project, also, can have an impact statewide even though the project, as designed, affects only Mt. San Antonio College. The manual can certainly serve as a prototype for other campuses to adopt or adapt. Second, the detailed information regarding the resources may reveal some unexplored and cost-effective possibilities to other campuses. Third, as the community college system begins to explore innovation more extensively, most of the research on technology systems can speed people's understanding of what is available. Fourth, the faculty training component and the follow-up component may offer
prototypes to possible resolutions of some learning and retention issues facing extended-day students statewide.

POTENTIAL FOR CONTINUED SUPPORT
Through its Technology Learning Center and its designation as a Regional Technology Transfer Center for IBM, Mt. San Antonio College exhibits a strong commitment to the integration of technology into its curricular offerings. In addition, the College has approximately half of its student population enrolled in extended-day programs. Finally, through its Educational Transfer Center and its Matriculation Committee's efforts, the College definitely and emphatically presents a picture of an institution committed to providing needed academic assistance to students who are pursuing an individual educational plan leading to a degree. Continued support from the College is an unquestioned given.

POTENTIAL FOR ADAPTATION
An abstract of the project's work will be sent to the CEO's of each of the state's community colleges. Colleges wishing to see detailed information from the project will be provided, at least, an electronic version (probably on floppy disk) of the information for their own use. In addition, an abstract will be sent to all members of the Commission on Innovation for the Community Colleges and to all Chairs of the individual task forces. Again, electronic versions of the project's work will be provided to Commissioners or Chairs who request them. For those colleges and individuals who are ready to explore interactive technology systems as one tool for addressing retention issues with extended-day students, adaptation of the project's work is certainly a real possibility. Other college's may simply use the project's work as a springboard for their own technology-based solutions.
EVALUATION PLAN

The project's Evaluation Plan will include a detailed analysis of all of the project's work for compliance with the Statement of Work. The project director will identify problems associated with the individual activities and tasks and will describe any modifications made to the project to resolve the problems. In addition, the project director and the designated personnel will describe all methodology related to the individual activities and their tasks and will describe any needed modifications to the initial methodology. Faculty who participate in the staff development training component will be asked to evaluate the training. Faculty who develop applications and/or prototypes will evaluate each of their individual projects and their projects will be evaluated in terms of what was originally proposed by the faculty member. Students involved in the courses where the applications and/or prototypes are tested will be asked to evaluate the integration of particular technology into their learning and the impact the integration into their decision to complete a course.

Certainly, the project director assisted by the designated personnel will describe the successes and identify ways to continue and to enhance those successes. In a final review of the entire project, the project director, with the cooperation and assistance of the personnel involved in each of the project's activities, will produce a set of recommendations to the College, to the project's committees, and to the College's Academic Senate for the continued development and expansion of the project's prototypes. A final report, containing information gained through the evaluation process, will be prepared for the College's President and for the Chancellor's Office of the Community Colleges.
DISSEMINATION PLAN

Within Mt. San Antonio College, a copy of the User's Resource Manual will be given to each extended-day faculty member who participated in project's training, to all prototype developers and testers, to the Chairs of all the campus-based committees who shared in the project's execution, to the Chairs of the College's Matriculation and Accreditation committees, to each of the College's Division Deans, to the College's Faculty Senate President and the College's President, and to each member of the College's Board of Trustees. An electronic version will be provided to the College's Publications Department who, in turn, can make copies available to anyone requesting the Manual. Because technology sometimes overwhelms faculty, this requesting procedure guarantees that the Manual goes to individuals who, by self-declaration, are prepared to use the Manual's material or to consult with the identified technology advisors.

The document describing the follow-up component will be delivered to the Chairs of all committees participating in the project, to the College's Division Deans, and to the College's President and Faculty Senate President.

An abstract of the project's report will be sent to CEO's of the state's community colleges, to the members of the Commission on Innovation and to the Chairs of the Commission's task forces, and to others identified by Mt. San Antonio College's President. Any individuals and institutions receiving the abstract may request and receive an electronic copy of the project's Manual and the project's final report.

The project's final report will be sent to the College's President and Faculty Senate President, to the Chairs of all the project's participating committees, and to the Chancellor's Office of the Community Colleges. For their own distribution systems, any of those individuals could request and receive additional copies or electronic versions of the project's final report.

All of the project's deliverables will be distributed by September 1, 1993. The success of the distribution, in part, will be determined by the number of people requesting additional copies or electronic copies. Also, the success of the distribution will be determined by the number of College's faculty who wish to participate actively in the follow-up component, either by exploring different resources than those identified in the project, by adopting/adapting tested applications into their extended-day programs, by requesting new or additional training on various technology systems, or by increasing their retention of extended-day students through the use of interactive technology systems. Finally, the success of the distribution will be determined by the number of other colleges who take the project's work and expand upon it.
9. Budget Narrative

[NO “BUDGET NARRATIVE” ACCOMPANIES THIS DOCUMENT.]