CALIFORNIA COMMUNITY COLLEGES
AND
MIRA COSTA
COMMUNITY COLLEGE DISTRICT

#90-0019
Project Title

Computer Mentor Project

Funding Category & Award

Grant = $14,600

Eligible Program

B --- Improving Teaching Ability

Project Category

Mentor Model

Project Product

Resource Materials

Faculty/Staff Develop

Project Topic #1

Inter-Disciplinary

Project Topic #2

Academic Subject

Project Supervisor

Claude Sweet, Adjunct Prof Horticulture

Bruce Stewart, Dean Vocational Education

Proposal Description

The Computer Mentor Project brought together faculty who would serve as mentors and to develop a bibliography, secure examination copies of instructional software, order appropriate equipment and plan a curriculum to meet the needs of colleagues who are computer novices. Twelve month computer loans were made to faculty to allow them to work through a customized curriculum which resulted in the production of classroom materials using specific software application packages.
Mira Costa is a small college, one which rarely can compete for grants. While our faculty members are few, they are big in talent. Our staff numbers many talented teachers in its ranks, most of whom use traditional lecture methods to convey information to students. Because this technique hasn't developed since Socrates, we are looking to offer these instructors variations on "doing to students what was done to them." Computer technology has transformed every profession but the profession of teaching. Learning theorists say students absorb only a fraction of lecture material, and most of what they learn, they soon forget. Harvard's Howard Gardner even tells us that multiple forms of intelligence exist, most of which can't be activated by traditional lecture. Computers, while not panaceas, add new arrows to faculty members' quivers.

Computers increase student excitement, we are told. Contemporary teachers of writing see computers shift student attitudes; good writing becomes more than just a "rough draft writ neat." Instructors in foreign languages feel computers add realism to instruction. Videodiscs, which tie into computers, allow students to polish fluency in foreign languages better than do audiotapes. Instructors in large courses such as math, find computer-based study sometimes compensates for students' deficiencies. Using a simple set of tutorials, students can hasten their progress. Computers also help scientists reconceptualize the laboratory through statistical packages and simulations.

Since computers represent the dawn of a new age in delivery systems, this grant will motivate faculty by freeing them from the need to repeat elementary facts for concentrating on critical thinking. Our goal finds students and faculty alike becoming fellow learners in a creative environment which translates into an inventive workforce equipped to meet the challenges of the new millennium.

In the fall semester, MiraCosta wants to use FII money to buy some time from our faculty planners. These computer pioneers will 1) develop a bibliography, 2) secure exam copies of instructional software, 3) order appropriate equipment, and most importantly, 4) plan a curriculum meeting the needs of colleagues who are computer novices.

In the spring semester, these computer mentors are charged with selecting applicants for our program. Depending upon the quality of proposals, our steering committee picks no more than fifteen recipients of the 12-month computer loan and takes them through a customized
curriculum which culminates in their producing classroom materials using the principal application packages: graphics, database, spreadsheet, and desktop publishing. All participants will make available samples of their classroom materials as well as give multi-media presentations employing new techniques and equipment. Training modules plus classroom materials will not only be available to local colleagues but also to faculty system wide. In the future, our hope is to offer a second training opportunity to these novices in authoring languages so central to computer-assisted instruction.
1. Specific Educational Program Being Addressed

What specific educational program or services the proposal is addressing?

Mira Costa seeks funding to address principally priority 1(AB1173) projects. Mira Costa wishes at the local level to improve the teaching abilities of its faculty (#2) at the same time as it improves traditional instructional programs (#5). We are also addressing part #3© from the Board of Governors' basic agenda regarding quality in our human resources.

We seek to implement a program which will "improve the skills" of college personnel by heightening their computer literacy. We are seeking a small grant in the sum of $15,000 to fund partially a project which will support this computer mentor innovation and offset costs of staff time. The district will shoulder the extraordinary expenses ($94,246) of non-classroom computer hardware and software.
2. Specific Problems Being Addressed

What specific problem(s) is being addressed in the proposal?

A. Over-reliance on the traditional lecture method of transmitting material.

B. Lack of time for our computer champions to develop new materials and tutor their colleagues

C. Relative slowness in the adoption of computer-assisted instruction options by most faculty

E. The near prohibitive cost to the district for computer equipment not used in the classroom directly but needed by faculty for preparing classroom materials

F. Limited incentives for novices among the faculty to become computer literate

G. Perceived inability of young, low-paid instructors to purchase computer equipment.
3. Population To Be Served

Identify the population(s) to be served by the project.

Semester I - A steering committee composed of the following people would meet weekly.

A. Our project director sprang from the part-time ranks and teaches horticulture. Owning himself tens of thousands of dollars worth of computer equipment and peripherals, he has made the new technology a hallmark of his own teaching. Moreover, he publishes and illustrates widely in his field. This project gives him access to equipment he could not otherwise

B. Computer mentors (three or four) representing vocational and transfer faculties will be appointed to a small steering committee. These are individuals who have--by dint of purchase and study--become recognized as innovators in the use of the computer for their classes. They are peers who could be called computer literate, computer enthusiastic, and computer dedicated to using the new technology with their students. They stand as a necessary pre-condition for a project such as this to work for the ultimate benefit of students in the classroom. In addition to receiving assigned time, they will realize their goal: an expansion of microcomputing power at Mira Costa.

C. The Instructional Computing Coordinator, who serves students and faculty in the Learning Resources Center, is himself a student of educational technology and a real resource to the steering committee. He sees participating as part of his 40-hour-per-week assignment.

Semester II -

The second population involves a maximum of fifteen computer novices to be selected from all lecturing quarters of the campus on the basis of competitive proposals for a one-year loan of hardware and software. They will be trained to use computers for easing the drudgery of preparing educational materials at the same time as they are given the freedom to be artistic and creative in their classroom preparations. These instructors will study for a minimum of twelve weeks with the mentors learning about courseware development; the classroom application of self-designed courseware with integrated video, sound, and animation graphics; spreadsheet applications; plus word processing for instructional applications.
4. Objectives

[SEE “WORKPLAN” SECTION OF THIS DOCUMENT.]
5. Workplan Narrative

Work statement
Budget amounts to be spent on each objective, personnel required, equipment, materials, and evaluation.

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<thead>
<tr>
<th>Date</th>
<th>Personnel/Objective/Activity</th>
<th>Impact:</th>
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<td>timelog, operational workstations, examples of classroom-tested materials, P.O. for software and enhancements</td>
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Impact:  module evaluation, evaluation of novice-developed materials  
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Impact:  module evaluation, evaluation of novice-developed materials  
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May  Steering Committee plus all participants and involved administrators evaluate project.  
Impact:  evaluation of project  
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June  Analyzes project, develops conclusions and Steering Committee submits its report to Chancellor's Office mailing products to nearby colleges.  
Impact:  report, materials sent  
Budget:  PD Salary ($1083.33)
6. Expected Outcomes

The expected outcomes of project activities, in terms of:

a. The project objective(s)

1. The project director will have facilitated the weekly meetings of the steering committee. He and the instructional computing coordinator will provide design and technical assistance to the computer mentor teachers as well as to the computer novices in our spring class.

2. The project director will have conducted a data search and will have compiled a working bibliography of instructional materials for the computer.

3. The project director will have compiled a list of share-ware and other educational software which can be purchased or exchanged.

4. The instructional computer coordinator will have collected examination copies of potential software for purchase.

5. The instructional computer coordinator will have built a library of such materials for faculty resource.

6. The steering committee will have completed purchase of two networked computer workstations.

7. The computer mentor teachers will have used their reassigned time to expand their knowledge of hardware and software and develop skills in utilizing both. They will originate and test prototypes of computer-generated classroom materials within their own disciplines.

8. They will have developed a training program for their colleagues selecting a maximum fifteen full-time faculty on the basis of competitive proposals and bringing them to a level of functional literacy by the end of spring.

9. This core of mentors will have worked throughout the year to tutor their colleagues and to provide planning expertise to the college for future computer purchases.

10. No more than fifteen faculty members representing diverse disciplinary backgrounds will have the use of computers and software for one year. In the spring semester, they will have learned and used representative computer applications (word processing, desktop publishing, spreadsheet, database, graphics, tutorials, etc.). By the end of fall semester, these computer novices will have put their skills to use in developing instructional materials which they will be prepared to share with colleagues on our own campus and in the system.
b. Impact of the project

Not only will the energy and time the mentor teachers have invested in expanding their computer literacy have been recognized, but also the energy and time of the novice teachers will have been rewarded through the use they will have made of costly equipment and software which the college has provided for this project. The participant instructors, who have historically relied upon traditional lecture methods, will have been given the opportunity to expand their teaching repertoire to include methods which have been shown to prove useful in transmitting knowledge and skills. These alternative methods will have improved the acquisition of knowledge by students. Thus most members of the academic community will benefit by the cross-fertilization which results.

c. Potential for continued support

The college will have invested in two high-powered work stations including slide maker and color printer, which will constitute the locus of classroom preparation in the planned faculty resource center. These units will continue to be available for use by participants in the program and will doubtless be enhanced as the technology advances in the future.

At the same time, the hardware loan which continues through the fall semester of 1991 will produce more classroom advantages than can be reported at this grant's end. Our hope is that we will be able to continue the project in the upcoming spring and pass the equipment on to different computer novices. We expect graduates will take advantage of discounts soon to be available to them through college purchase plans and buy their own equipment. We also expect graduates to themselves become unofficial mentors of the future.

d. Potential for adaptation to other institutions or programs

It is undeniably clear that entering the new millennium will mean major drains on existing equipment budgets. Yet colleges such as Mira Costa are embracing the future by embracing the new technology. Sister colleges which want to foster this kind of innovative break from traditional instructional delivery systems will want to make the same kind of commitment to faculty retraining. They may want to use 1) our instructional modules, 2) our bibliography, 3) our purchase plans as they dedicate lottery monies or other general fund sources to the acquisition of this kind of non-classroom equipment (therefore ineligible for categorical equipment monies).
Evaluation Plan

At each stage of the spring training period, novice faculty will have submitted evidence that they can utilize word processing, construct tables and charts, develop style sheets, use an index and footnotes, employ spell checker and thesaurus, create slides and transparencies. They will additionally turn in examples of their use of data bases plus templates for the automation of repeated tasks. They will have shared these materials with their fellow trainees. They will be ready to make presentations to nonparticipant colleagues in the fall 1991 staff development workshops.
8. Dissemination Plan

DISSEMINATION

Mira Costa will make available that annotated bibliography of instructional software, the equipment list for the computer equipment, plus materials for and by the novice teachers to nearby colleges (Palomar, Mesa, Miramar, San Diego City, Southwestern, Grossmont, and Imperial Valley). Each of the steering committee members is available to talk about the project by phone or at conferences on instructional innovations.
90-0019

9. Budget Narrative

The project budget

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<tr>
<td>Project Director</td>
<td>$13,000</td>
</tr>
<tr>
<td>Mentors (re-assigned time)</td>
<td>18,000</td>
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<tr>
<td>Computers</td>
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<td>Textbooks</td>
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<td>Software</td>
<td>8,195</td>
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