### Instructional Strategies for Improving Student Learning and Retention

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**PROJECT DIRECTOR**

Karolyn Hanna, Asso Professor Nursing

**PROJECT SUPERVISOR**

Jack Friedlander, Dean Academic Affairs

**PROPOSAL DESCRIPTION**

The project was designed to develop and share models for the design, implementation and evaluation of classroom research projects that can be used statewide. The primary objective was to incorporate into the classroom, effective instructional strategies designed to enhance students' motivation toward learning, strengthen students' learning skills needed to succeed in individual courses and stimulate students to become actively involved in their own learning. Data on student attrition and ratio of productive to non-productive grades was collected and compared with historical data for the same courses. A student survey measured faculty-student interaction, student-to-student interaction, change in study habits and utilization of campus resources and support services.
Instructional Strategies for Improving Student Learning and Retention

To date, the primary focus of most matriculation plans has been on assessing, advising and placing students into courses commensurate with their educational background and objectives. Even when students are placed in appropriate level courses, research studies have demonstrated that there are a number of critical factors related to how instructors conduct their classes that are important determinants of whether or not the student will complete the courses and remain in college.

The major objective of this project is to incorporate into the classroom effective instructional strategies designed to enhance students' motivation toward learning, strengthen students' learning skills needed to succeed in individual courses, and stimulate students to become actively involved in their own learning. Faculty representatives from each of the nine instructional divisions on the SBCC campus will incorporate one or more instructional strategies into their courses. Data on student attrition and ratio of productive to non-productive grades will be collected and compared with historical data for the same courses. In addition, a student survey will measure faculty-student interaction, student-to-student interaction, change in study habits and utilization of campus resources and support services.

A second major objective is to develop and share models for the design, implementation, and evaluation of classroom research projects that can be used throughout the state. Written and oral presentations on the design and results of this study will be shared at the local level and at regional and state meetings. It is expected that the model for planning, implementing and evaluating classroom research projects will stimulate colleagues on other campuses to participate in instructional improvement activities. Sharing of the model, process and evaluation measures developed in this study will save time and resources for faculty on other campuses.
Instructional Strategies for Improving Student Learning and Retention

1. Specific Educational Program Being Addressed

EDUCATIONAL SERVICES ADDRESSED
The overall goal of this project is to increase student success and retention in selected courses by involving faculty members in a project which identifies, refines and incorporates specific instructional strategies into their classrooms. Many of the instructional strategies to be used in this project were developed as part of a pilot instructional improvement project being conducted at Santa Barbara City College this year. Specific objectives are as follows:

a. To increase student retention in classes selected for the experimental group. (Retention will be measured by a decrease in attrition rate--students withdrawing from a course between the 4th and 11th week census period.)

b. To increase the ratio of productive to non-productive grades assigned. (Productive grades are A, B, C, D and CR. Non-productive grades are W, I, F, and NC.)

c. To increase student satisfaction with the teaching/learning process and the quality of the classroom environment.

d. To increase student involvement on campus.

e. To enhance faculty satisfaction in the teaching/learning process.

Examples of proposed strategies include: small group involvement to increase students' sense of affiliation or connectedness with the instructor and with other students in the class; student involvement in course-related learning activities; acquisition of notetaking, study, writing and reasoning skills needed to succeed in the course; and motivation to complete required assignments and/or to seek needed assistance from college support services.
2. Specific Problems Being Addressed

SPECIFIC PROBLEMS ADDRESSED
In the past five years, considerable effort has gone into improving the assessment, advisement, placement, follow-up and evaluation components of the college's matriculation program. Studies have shown that although the semester-to-semester college persistence rates have increased steadily over the past four years, the percentage of nonproductive grades (W, I, F, and NC) awarded in a given semester has remained relatively constant at approximately 30 percent.

Research findings also revealed that although most students were placed into courses that were appropriate to their individual ability levels as measured by scores on the assessment tests and high school grades, a high percentage of the students who withdrew from particular courses did so for reasons that are not taken into account during the assessment process. These factors include: notetaking and study skills; student sense of affiliation or connectedness with the instructor and with other students in the class; student motivation to attend class and complete required assignments; student active involvement in the learning process; and student initiative to take advantage of needed and recommended support services. Effective instructional strategies are needed to address each of these factors that are related to student success.

Certain categories of matriculated students are more prone to withdrawing from their classes and from college than others. Matriculated students in high risk categories include those who attend college on a part-time basis and those who attend classes entirely in the evening. Opportunities for these students to have significant interactions with their instructors and their classmates outside of class and to take advantage of needed support services is much more difficult than for those attending college on a full-time basis and for part-time students taking classes during daytime hours. Since the majority of students in the matriculation program attend college on a part-time basis, the success of matriculation programs will rest, in part, on the development of effective instructional strategies for increasing student involvement in all aspects of the learning process.

A second problem that will be addressed in this project is the need to develop classroom intervention strategies that can be used by faculty members on an ongoing basis, that do not require a substantial and long-term commitment of college resources to maintain, that can be easily adopted by other faculty, and that can be incorporated into the classroom year-in and year-out without causing faculty burnout. Most innovative projects are short lived due to the need for substantial resources for the maintenance and expansion of the strategies developed and/or because of the tremendous commitment of time needed to sustain the strategy.
3. Population To Be Served

POPULATION TO BE SERVED
Nine faculty members teaching introductory degree-applicable courses will receive extensive training in Summer, 1989 on incorporating into their courses teaching strategies that will promote student learning and retention. The faculty will field test and evaluate the instructional strategies they develop in 18 sections of courses offered in the 1989 Fall Semester and again in the 1990 Spring Semester.

A minimum of 900 students from all instructional divisions of the campus will be involved in this project. Faculty selected to participate in this project will be drawn from each of the instructional divisions of the college. The courses selected for the project will be those with high attrition rates. A cross-section of students representing about 9 percent of the college's student body in day and evening classes will be included in this project.
4. Objectives

WORK STATEMENT

OBJECTIVE 1.
Nine faculty members drawn from each of the nine instructional divisions of the college will be selected to participate in this project.

ACTIVITY:
The criteria for selection will include a desire to try new teaching strategies, the willingness to commit to this one-year project, interest in sharing the results of their efforts with other faculty members, and teach at least one course with high attrition rates. The project will be directed by a faculty member who is currently coordinating the successful pilot study on which this proposal is based.

TIMELINE:
Participants will be selected by May 15, 1989.

OBJECTIVE 2.
During summer, 1989, project participants will develop instructional strategies designed to increase student learning and retention in one or more of the following areas: increasing students' sense of affiliation and connectedness with the instructor and with other students in the class; increase student involvement in course-related activities; improve student note-taking, study, test-taking and/or writing skills; increase student motivation to participate in class and to complete required class assignments; and increase the likelihood that students will seek assistance from needed support services.

ACTIVITY:
Project faculty will devote 50 hours during the summer developing instructional strategies. The faculty will attend two meetings a week for four weeks. Each meeting will contain a workshop on using a particular instructional strategy intended to achieve the objectives of this project. In addition, a portion of the meetings will be spent having faculty share ideas for their projects and participate in role playing activities to assess the effectiveness of the instructional approaches they are developing.

Along with attending the meetings, project faculty will be expected to complete a written report describing how they plan to incorporate their instructional strategies into their existing classes. The faculty will be expected to work with college support service staff (e.g., Reading/Study Skills Center, Writing Lab, Learning Assistance Center, Media Services). In addition, each instructor will work with the project coordinator to design evaluation techniques to test the effectiveness of the instructional strategy they implemented. These evaluation measures will be used to determine the effectiveness of the project.
TIMELINE:
By August 15, 1989, each of the 9 project faculty will have completed a report that documents the strategies they plan to use in their classes in the 1989 Fall Semester. The workshops will begin in the last week of June and end by July 30.

RESOURCES:
Funds are needed to pay for five faculty consultants to lead workshops pertaining to using an effective instructional strategy designed to achieve the objectives of the project. Each faculty consultant will be compensated for five hours of work at their hourly rate. Each of the nine project participants will receive compensation for 50 hours for their work on the project during the summer. A consultant from the University of California at Santa Barbara will receive $1,000 to work with the faculty members in developing the evaluation measures to assess the effectiveness of the instructional strategies developed.

EVALUATION:
The project evaluator, in consultation with the project faculty, will evaluate the projects developed in terms of their completeness, practicality of being implemented, likelihood that they will achieve the desired objectives, and soundness of the evaluation design. Projects not meeting these criteria will have to be revised prior to the start of the fall term.

OBJECTIVE 3.
During the 1989 fall semester, project faculty will implement the instructional strategies into two of the classes they are assigned to teach. The evaluation instruments used to measure student success will be administered during the 14th week of the semester to students in the instructors' classes in which the new teaching strategy is being field-tested and in sections of the same classes in which the strategy is not being used.

ACTIVITY:
During the course of the semester, project faculty will meet at least twice each month to discuss their projects. The project director and faculty consultants who participated in the summer workshops will be available to assist faculty with the projects.

RESOURCES:
Project faculty will each receive 15 hours of compensation at their hourly rate for attending the bi-weekly meetings. A technician in the research office will spend 40 hours inputting the data from the surveys and conducting the statistical analyses.

EVALUATION:
Evaluation will involve the following:
• Attrition Rates--Attrition rates for the 1989-90 academic year will be compared with historical data for the same course taught by the same instructor over the past two years.
• Productive Grades--The ratio of productive to non-productive grades for the 89-90 academic year will be compared with historical data for the same courses taught by participating faculty over the past two years.
• Student-Faculty Interaction--An assessment of student-faculty interaction will be obtained through student evaluation of this interaction on the Student Evaluation Scale (see attachment).

• Student to Student Interaction--Data will be collected from students regarding their degree of interaction with other students on the campus through a student evaluation scale (see attachment).

• Study Skills--Assessment of improvement in study skills will be based on self-reported data from the student survey, timely completion of course assignments and indirectly through the ratio of productive to non-productive grades for the course.

• Student Use of Campus Resources--To be obtained from the student evaluation.

TIMELINE:
Projects will be implemented during Fall Semester 1989. Student evaluations will take place during the 14th week of the semester. Compilation of evaluative data for fall semester will be completed by February 15, 1990.

OBJECTIVE 4.
Project faculty will refine the instructional strategies they implemented in fall, 1989 and they will replicate them in their classes in spring, 1990.

ACTIVITY:
The same procedures followed in Fall, 1989 for implementing and evaluating the instructional strategies will be replicated in the 1990 Spring Semester.

RESOURCES:
The resources required to complete this objective will be the same as those noted under Objective 3.

EVALUATION:
The evaluation procedures will be the same as those described in Objective 3.

TIMELINE:
Projects will be implemented during the 1990 Spring Semester. Student evaluations will take place during the 14th week of the semester. Compilation of the evaluative data for spring semester will be completed by June 30 1990.

OBJECTIVE 5.
A report describing the instructional strategies, implementation, evaluation design, and results will be completed for each of the projects. The reports will be disseminated to the faculty by way of presentations at department meetings, college in-service days and articles in college publications. Project results will also be
disseminated statewide through articles in disciplinary journals and at regional and state conferences.

**ACTIVITY:**
The goal of the dissemination effort is to have a minimum of two faculty members from each of the college's nine instructional divisions adopt one of the teaching strategies developed in this project during the 1990-91 year.

**RESOURCES:**
$200 for duplicating and $500 for clerical support for tabulating data.

**EVALUATION:**
Success in achieving this objective will be based on the number of faculty presentations, number of faculty who agree to try out the instructional strategies in their classes in 1990-91, and feedback to presentations and written materials.

**TIMELINE:**
A preliminary report on the fall projects will be prepared in February, 1990 and the report for the entire project will be completed by July, 1990.

**OBJECTIVE 6.**
Models for evaluating a variety of classroom research projects will be documented and disseminated statewide. The documentation will include survey instruments and measures that can be used to evaluate the effectiveness of classroom research projects.

**ACTIVITY:**
One of the major contributions of this project is to develop evaluation designs and measures that faculty at other colleges can use. The evaluation designs, which will be developed in consultation with the consultants at UCSB, can be readily adapted by other colleges. This will save substantial resources and will improve the quality of classroom research projects designed to improve student learning and retention.

**EVALUATION:**
The evaluation of this objective will be based on the feedback received from colleagues on other campuses regarding the value and ease of use of the designs.

**TIMELINE:**
The evaluation designs will be disseminated to colleges in August, 1990.
5. Workplan Narrative

[SEE “OBJECTIVES” SECTION IN THIS DOCUMENT.]
EXPECTED OUTCOMES

Expected outcomes are described within the Work Statement. Specific criteria for evaluation of effectiveness of project criteria are as follows

- **Reduced Attrition.**
  There will be a decrease in the percentages of students withdrawing from the course during the 1989-90 academic year in comparison to data for the same course, same instructor, during the preceding academic year (1988-89) or other historical period.

- **Productive Grades.**
  There will be an increase in the ratio of productive grades to non-productive grades in the experimental sections during the 1989-90 academic year, when comparing that data with historical data from the same course, same instructor, during the preceding academic year (1988-89) or other historical period.

- **Improvement in Student Study Skills.**
  Students will be asked to respond to a survey designed to measure gains in their study skills as a result of instruction provided in the class.

- **Student Involvement.**
  Students will be asked to respond to a survey designed to assess their level of participation in course-related activities and their use of available college resources and facilities.

- **Faculty Satisfaction.**
  Faculty will indicate verbally and/or in writing, their level of satisfaction with the teaching/learning process following incorporation of the new instructional strategies into their courses.
7. Evaluation Plan

[SEE "OBJECTIVES" SECTION IN THIS DOCUMENT.]
8. Dissemination Plan

[SEE “OBJECTIVES” SECTION IN THIS DOCUMENT.]
B U D G E T  S U M M A R Y

Project Coordinators (1): 9 TLUs each @ $600 per TLU. $5,400
Project Faculty (9): 4 TLUs each @ $600 per TLU. 21,600
Faculty Consultants (5): 5 hours lab rate @ $25.00 per hour. 625
Evaluation Design Consultant. 2,000
Other Expenses: (Duplicating, $200; Tallying of Data, $500) 700
Travel to State Conferences: 1,000
Total Funds Required: $31,325

B U D G E T  E X P L A N A T I O N / P R O J E C T  P E R S O N N E L

Project Coordinator, Karolyn Hanna ($5,400).
The project coordinator will spend 50 hours of her time to this project in Summer, 1989 and
approximately 200 hours during the Academic Year. The time will be spent coordinating the
workshops, organizing and conducting project meetings, consulting with project faculty and
preparing reports. The coordinator will also take the lead in disseminating project findings at
statewide meetings.

Nine Project Faculty ($21,600 or $2,400 each).
Each of the project faculty will devote 50 hours to this project in Summer, 1989 and an
additional 50 hours during the Academic Year. This time doesn't include actual in-class
teaching. Faculty will attend workshops, prepare instructional materials and participate in the
evaluation activities.