Supplemental Instruction: Improving Student Success and Increasing Student Retention

This project is a collaborative effort to introduce Supplemental Instruction (SI) to the district. Specially trained tutors, who serve as SI leaders conduct activities which model good study skills in the context of the content of the target class. Students gain additional understanding of the subject matter and learn study skills which are applicable to other courses. SI courses will be open to all students but significant recruitment efforts will focus on the “at-risk” students.
Supplemental Instruction: Improving Student Success and Increasing Student Retention

Supplemental Instruction is an academic assistance program that improves student performance and increases student retention. The tutorial coordinators of the two colleges of Yosemite Community College District, Modesto Junior College and Columbia College, have embarked on a collaborative effort to introduce Supplemental Instruction to the district.

Supplemental Instruction (SI) offers academic assistance to target courses with high attrition and failure rates. Specially trained tutors serve as Supplemental Instruction leaders. Supplemental Instruction sessions are held immediately after lecture. The SI leader conducts activities which model good study skills in the context of the content of the target class. In this way, students gain additional understanding of the subject matter and learn study skills which are applicable to other courses. Although SI sessions are open to all students in the class, recruitment efforts would focus on "at risk" students, including reentry students, underrepresented students, students repeating the course, and those qualifying for Extended Opportunities Programs and Services (EOPS) and Disabled Student Programs and Services (DSPS).

Supplemental Instruction sessions will be offered for four high risk courses, two at each campus. Program success will be determined by comparing retention rates and academic performance of classes with Supplemental Instruction to the same courses before SI was introduced.

Information regarding the progress and results of Supplemental Instruction will be disseminated through three issues of a special newsletter for faculty and staff of both campuses. The tutorial coordinators will also make a presentation at the 1993 conference of the Association of California Colleges Tutorial and Learning Assistance conference, a professional organization of tutorial coordinators.
Supplemental Instruction: Improving Student Success and Increasing Student Retention

1. Specific Educational Program Being Addressed

Introduction

This project represents a collaborative effort between the tutorial program coordinators from both campuses of Yosemite Community College District to introduce Supplemental Instruction to the district. Supplemental Instruction is an academic assistance program that improves student performance and increases student retention.

Two colleges form Yosemite Community College District: Modesto Junior College of Modesto with an annual average daily attendance of 9,575, and Columbia College located in the Sierra foothills, with an average daily attendance of 1,684.

Yosemite Community College District (YCCD) has just completed Vision 2000, a strategic planning document which includes 10 Vision Statements. The Vision Statements offer a "preferred future" approach to planning. Vision # 1 states "Yosemite Community College District provides the highest quality educational programs and services possible in the highest quality environment". This proposal, which would introduce Supplemental Instruction to YCCD, is consistent with the spirit of Vision # 1.

1. Specific Educational Program Addressed by this Proposal

Supplemental Instruction (SI) is a non-traditional form of instruction which provides academic assistance to courses which have low retention rates and high failure rates.

Supplemental Instruction was initiated by Dr. Deanna C. Martin at the University of Missouri-Kansas City. The following description of Supplemental Instruction comes from Dr. Martin's paper entitled Supplemental Instruction; Improving Student Performance, Increasing Student Persistence.

There are several key elements of SI that differentiate it from group tutoring and other forms of academic support: The SI program is attached to specific courses which are historically difficult for students; participation in the SI program is voluntary; the SI
leader attends all targeted class session; the SI leader is trained in specific teaching/learning theory and techniques before the beginning of the term; the SI program is supervised by a trained professional staff member; the program is offered only in classes in which the faculty member invites and supports SI; SI sessions are conducted regularly and integrated course content with learning strategies; the SI leader facilitates and encourages the group to process the material rather than acting as an authority figure who lectures to participants; and the program is evaluated rigorously.

Assistance begins the first week of the term. SI sessions occur in classrooms near the course classroom instead of in a learning center and are open to all students in the course on a voluntary basis. SI leaders are students who have previously completed this course.

Since SI is introduced on the first day of class and is open to all students in the class, SI is not viewed as remedial.

SI leaders take part in an intensive two day training session before the beginning of the academic term. This training covers such topics as how students learn, theories of student development, instructional strategies aimed at strengthening student academic performance, and data collection and management details. The SI leader also meets as a group with the SI supervisor at least three times during the term for follow-up and problem solving sessions.

SI leaders attend all class session, take notes, read all assigned material and conduct three 50-minutes SI sessions each week. These SI sessions integrate how to learn with what to learn. Students who attend SI sessions discover appropriate application of study strategies, e.g. note taking, graphic organization, questioning techniques vocabulary acquisition and test preparation as they review content material. (Martin, 1991)

Four course have been selected as target courses for this project. Each represents a different component of the community college curriculum. At Modesto Junior College, Statistics and General Psychology will have SI sessions. Statistics meets course requirements for the Math major and it is an option for meeting general education requirements. General Psychology is required for the Psychology major and it is an option for meeting general education requirements. At Columbia College, Supplemental Instruction will be offered for Intermediate Algebra and Business Math. Intermediate Algebra is a prerequisite for transferable math courses. Many of the students in the target recruitment populations need to take this course before taking higher math courses. Business Math is a vocational education course which is required for five of the seven Office Occupation certificates. It is also required for one of the two Business majors.

Instructor endorsement of Supplemental Instruction was also a critical component in the selection of these courses. Letters of support from each instructor are found in Appendix A.
Implementing Supplemental Instruction would address three of the eligibility categories targeted by the Fund for Instructional Improvement. Supplemental Instruction is a nontraditional form of instruction. It offers a means of meeting the special learning needs of educationally disadvantaged students. And it is an effort to improve the traditional instructional program.

Supplemental Instruction (SI) speaks to the Board of Governors Basic Agenda Priorities. SI offers a means to enhance educational quality by increasing the success of underrepresented students in the target courses, which include courses from the transfer and vocational curricula.

Supplemental Instruction has the added benefit of addressing two common college concerns. Since the tutorial programs are part of Student Services, Supplemental Instruction forges another link between Instruction and Student Services. Also, Supplemental Instruction will become integrated into the matriculation process. Students identified as "at risk" by the matriculation process would be informed on their assessment printouts if Supplemental Instruction is offered for courses in their major.

Supplemental Instruction is a non-traditional approach to academic assistance which improves student success, increases retention and maintains an environment of quality education.
2. Specific Problems Being Addressed

Specific Problem Addressed by this Proposal

Certain courses traditionally have high attrition and failure rates. The intent of Supplemental Instruction is to increase retention and performance of all SI participants. Recruitment efforts will target "at risk" students.

Each of the target courses was selected because of low retention and high failure rates, as indicated in the table below. Percent Dropped represents the percentage of students who were still enrolled by the fourth week of Fall 1991 semester, but withdrew before the end of that semester. Percent Grades D or F represents the percentage of students who remained enrolled to the end of the semester, but received a grade of D or F.

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Initial</th>
<th>Percent Dropped</th>
<th>Percent Grades D or F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistics</td>
<td>79</td>
<td>33%</td>
<td>19%</td>
</tr>
<tr>
<td>General Psychology</td>
<td>180</td>
<td>23%</td>
<td>18%</td>
</tr>
<tr>
<td>Intermediate Algebra</td>
<td>63</td>
<td>40%</td>
<td>16%</td>
</tr>
<tr>
<td>Business Math</td>
<td>58</td>
<td>48%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Supplemental Instruction was selected over alternative methods of increasing retention. Additional instructor time for required laboratory sections is expensive and often not feasible with current workloads. Traditional one-on-one tutoring is currently available and it does help with retention, but the tutorial coordinators want to expand the services for target courses. Supplemental Instruction, an effective yet relatively inexpensive means of increasing student retention and performance, has been selected as an extension to the tutorial programs.
3. Population To Be Served

Populations served by this Proposal
All students enrolled in the target courses are welcome to attend Supplemental Instruction sessions. Research shows that, on average, all participants will benefit (see appendix B for additional information). However, recruitment efforts will focus on "at risk" students including: those qualifying for Extended Opportunities Programs and Services (EOPS)

- those with low basic skills scores on matriculation assessment
- reentry students
- those students with learning disabilities verified by the Disabled Students Programs and Services (DSP&S) program
- students who are repeating the course
- students on academic probation
- students identified by the course instructors as needing additional assistance.

The short term impact on the students who participate in SI sessions will be increased persistence and improved understanding of the subject matter as reflected in higher grades in the course. The long term impact on these students will be improved study skills which will be applicable to other courses. Also, success in difficult classes leads to improved self esteem.
4. Objectives

Proposal Objectives

Overall Goal
To increase the retention rate and overall academic performance for specified high risk courses by offering students the option of Supplemental Instruction as an academic assistance program that improves student performance and increases student retention.

Objective One
The Tutorial Coordinators from both colleges will attend training in Supplemental Instruction theory and implementation and will score 85% or better on workshop evaluation. Training will occur by August 14, 1992.

Objective Two
Seventy five percent of students being trained as Supplemental Instruction Leaders will score 80% or better on training evaluation by August 21, 1992.

Objective Three
Fifty percent of students in the target population enrolled in the designated high risk courses will participate in Supplemental Instruction sessions on a regular basis, attending at least 80% of the sessions offered, by December 20, 1992 for fall semester and May 14 for spring semester.

Objective Four
Implement Supplemental Instruction sessions in four predetermined high-risk courses, two at each college. Seventy-five percent of target courses will have SI sessions by August 24, 1992.
5. Workplan Narrative

Project Work Statement

A. Written Narrative

Objective
One The Tutorial Coordinators from both colleges will attend training in Supplemental Instruction theory and implementation and will score 85% or better on workshop evaluation. Training will occur by August 14, 1992.

Budget: $1,590

This project is indeed on the vanguard of academic assistance: only one authorized Supplemental Instruction instructor is available on the west coast. She will be brought to Yosemite Community College District because it is less expensive to bring her here than it would be to transport the tutorial coordinators to Oregon.

Training for tutorial coordinators will include
1. training of SI student leaders
2. implementation and supervision of the SI program
3. data collection and interpretation
4. evaluating SI programs.

Objective Two
Seventy five percent of students being trained as Supplemental Instruction Leaders will score 80% or better on training evaluation by August 21, 1992.

Budget: $862

Experienced tutors who excel in the target courses will be invited to apply for SI Leader positions. Of qualified applicants, preference will be given to under represented students with plans to enter the teaching profession.

Tutorial Coordinators will plan, conduct and evaluate SI Leader training workshops on each campus, each semester.

Objective Three
Fifty percent of students in the target population enrolled in the designated high risk courses will participate in Supplemental Instruction sessions on a regular basis, attending at least 80% of the sessions offered, by December 20, 1992 for fall semester and May 14 for spring semester.
Budget $550

Because no credit is offered for attending Supplemental Instruction sessions, attendance cannot be mandatory. Students may have reasons other than lack of interest for not attending SI sessions such as class or work scheduling conflicts. This project anticipates a 50% participation in Supplemental Instruction sessions, an ambitious goal for a course activity in which attendance is not required. However, it will be attainable because Supplemental Instruction is effective in assisting students succeed in the target courses. One instructor of a target course will be offering extra credit to Supplemental Instruction participants as additional incentive to attend.

Promotion and recruitment efforts will include the following activities:

A notice in the course schedule will promote this service and thereby discourage students from registering for another class during the time scheduled for SI sessions.

Tutorial Coordinators will hold a meeting with counselors to explain the benefits of Supplemental Instruction. Counselors will be encouraged to recommend SI to the "at risk" students they advise and to assist students in designing their schedules accordingly.

Tutorial Coordinators will speak to Study Skills and College Success classes about Supplemental Instruction.

Tutorial Coordinators will make a special presentation about SI during college hour to inform the general college population about the program.

Tutorial Coordinators or SI Leaders will speak in the target courses at the beginning of each semester to explain and promote the program to students in the classes.

Written invitations to targeted students to join the Supplemental Instruction sessions will be presented in a positive vein such as "An Invitation to Success".

Reluctant "at risk" students will be contacted in person or by telephone to encourage participation.

Include recommendations on the matriculation assessment print outs to attend SI sessions to target students with majors which include classes offering Supplemental Instruction.
Objective Four

Budget $11,996

Tutorial Coordinators will arrange facilities, supervise SI Leaders, monitor SI sessions and confer with instructors of classes being served by SI and collect data related to the program.
6. Expected Outcomes

Expected Project Outcomes

A. Expected Outcomes by Project Objectives

Objective One
The Tutorial Coordinators from both colleges will attend training in Supplemental Instruction theory and implementation and will score 85% or better on workshop evaluation. Training will occur by August 14, 1992.

Expected outcome: Tutorial coordinators will gain the necessary expertise in Supplemental Instruction to effectively coordinate SI programs on their respective campuses.

Objective Two
Seventy five percent of students being trained as Supplemental Instruction Leaders will score 80% or better on training evaluation by August 21, 1992.

Expected outcome: Student Supplemental Instruction leaders will be sufficiently proficient in Supplemental Instruction techniques to effectively lead SI sessions.

Objective Three
Fifty percent of students in the target population enrolled in the designated high risk courses will participate in Supplemental Instruction sessions on a regular basis, attending at least 80% of the sessions offered, by December 20, 1992 for fall semester and May 14 for spring semester.

Expected Outcome: At least half of the "at risk" students participating in Supplemental Instruction sessions for target courses will attend SI sessions and reap the educational benefits of participating in Supplemental Instruction.

Objective Four
Implement Supplemental Instruction sessions in four predetermined high-risk courses, two at each college. Seventy-five percent of target courses will have SI sessions by August 24, 1992.

Expected Outcome: Target courses with SI sessions available to students will have statistically significant increase in average grade and retention rate compared to previous classes.
B. Impact of the Project

Expected Outcome: Yosemite Community College District will have expanded the services offered through the Tutorial Programs and contribute to increase student performance and retention. Once initiated through this grant, Supplemental Instruction Service will be offered for other courses with low retention/high failure rates.

C. Potential for Continued Support

The college plan for the Carl D. Perkins Vocational and Applied Technology Education Act (VATEA) designates funds for tutoring for the target populations who are enrolled in Business courses. A portion of these funds would be allocated for Supplemental Instruction in Business Math and other high risk Business classes.

Additionally, if the evaluation of funds spent on SI versus funds spent on one-on-one tutoring shows that SI saves money, then a portion of the tutor budgets will be allocated to Supplemental Instruction.

Due to current increases in class size the district has indicated its intention to support methods which relieve the burden on instructors of large class size. Supplemental Instruction is a valid means to support instructors.
7. Evaluation Plan

Evaluation Plan
A. Program Evaluation Plan

The project Work Statement will be used as a time line and guide for the project.

Formative evaluation will include identification of problems incurred and identification of effective program management through the following activities:

- Survey SI Leaders immediately after receiving training as to the effectiveness of training. They will be surveyed again at the end of each semester as to the effectiveness of their training and supervision.
- Survey satisfaction of students participating in SI sessions.
- Follow up by telephone or, if possible in person, with a survey of those students who started SI sessions but then stopped attending.
- Compile the results and adjust the program where possible to accommodate the needs expressed in the surveys.
- An Advisory Board will be formed for each campus to make recommendations to solve problems as they arise. Board members will include the instructors from the target courses, the tutorial coordinators, and representatives of the EOPS and DSPS staff. Letters of support are found in Appendix A.

Summative evaluation will include:

- Statistical analysis of student retention in target classes comparing retention rates of target courses taught previous to the implementation of Supplemental Instruction compared to the retention rate after implementing SI.
- Statistical analysis of student success in target classes comparing success (grades) in target classes taught previous to the implementation of SI compared to the success after implementing SI.
- Statistical analysis of retention rate in these non-mandatory SI sessions. Survey SI Leaders who stated initially that they have a goal of becoming teachers if this experience has increased or decreased their desire to teach.
- Compare the cost of tutoring all SI participants individually for an equivalent number of hours to the cost of offering SI.
The final report submitted to the Chancellor's Office Fund for Instructional Improvement and to the management level supervisors will include recommendations based on the results and findings of this project.
8. Dissemination Plan

Dissemination Plan

The faculty of the two campuses will be informed about Supplemental Instruction in a special newsletter to be published no less than three times in the year of the project. The first two newsletters will inform faculty about the program as it progresses. The last newsletter will include a summary of the statistical information compiled about the program.

At least two summaries of the program will be made in the staff bulletin to inform the general staff about SI.

Tutorial Coordinators will also make one presentation to the academic senate of each campus during the first year.

Tutorial Coordinators will make a joint presentation at the 1993 Association of California Colleges Tutorial and Learning Assistance, a professional organization for tutorial program coordinators. The presentation will include an overview of the program and the statistical results of the first year.

Evaluation Methods for Dissemination Plan

A faculty interest survey will be conducted on both campuses after the release of the final newsletter. The effectiveness of the dissemination plan will be reflected in the number of faculty interested in participating in or learning more about Supplemental Instruction.

A standard evaluation form will be used to evaluate the presentation by the tutorial coordinators at the Association of California Colleges Tutorial and Learning Assistance conference.
9. Budget Narrative

[NO “BUDGET NARRATIVE” ACCOMPANIES THIS DOCUMENT.]