**94-1011**  
American River

**Peer-Assisted Learning Outside the Classroom (PAL)**

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Consortium Project.

This consortium will be a two-year joint venture involving the three colleges of the Los Rios Community College District and one feeder high school to each college. The schools involved are American River College and Highlands High School; Cosumnes River College and Florin High School; and Sacramento City College and Grant High School. Both Grant High and Highlands High are part of the Grant Joint Union High School District, and Florin High School is part of the Elk Grove Unified School District. All schools involved welcome the consortium and are committed to its success. Teachers from each school have volunteered to work on the project. The schools in the consortium will collaborate to provide peer-assisted learning services to underrepresented students in selected classes that have high dropout rates: biology, chemistry, physics, earth science, math, accounting, drafting, anthropology, and psychology classes. American River College will lead the project and hire the project director.

In the first year of the project, the project director will coordinate a collaboration among Learning Resource Center staff at all three colleges to discuss the training of students who will become learning assistants competent in the techniques necessary in directing peer-assisted learning groups. Staff of the Learning Resource Center at American River College will use the expertise they gained in two successful years of the Beacon project to train students from all three colleges in peer-assisted learning techniques.

The project director will work with the contact people at each college to assist in the selection of targeted courses, instructors, and students who will become learning assistants.

The learning assistants will be students who have successfully completed the targeted course; they will be paid for time spent in the training, tutoring, and meeting with faculty.

College faculty will receive small stipends. High school teachers will receive somewhat higher stipends since they are acting as contact persons and working with a new model. Contact people at each college will work directly with the project director and the teachers at the college to select classes to be targeted as well as to serve as a consultant in selection of learning assistants. The contact person will work with the Learning Resource Center staff to coordinate training of the learning assistants and will help plan
and conduct monthly meetings with the learning assistants at their campus. The contact person will serve as intermediary between the project director and the instructors, Learning Resource staff, learning assistants, and the participating students.

A researcher at each college will be responsible for compiling grade and retention information on the participants at the end of each semester and for preparing a report on success rates of participants. Using focus groups, a researcher will also collect anecdotal information from participants and from learning assistants to be used in evaluating attitudinal changes of both as well as information which will be used to modify and improve the project. This researcher will analyze the pre- and post-attitudinal tests and compile a written report at the end of each semester.

The idea that patterns of success need to be established early is an essential component of the consortium. In the second year of the project, the project director will oversee the process of joining the high school feeder schools with their linked community college in the peer-assisted learning project. The college peer-assisted learning groups outside of class will be formed and conducted just as they were in the first year. In addition, the project director will work with one science or math teacher in each of the feeder high schools to aid in targeting courses and to select three advanced science and math students from each high school to become learning assistants. These high school learning assistants will be trained along with the college learning assistants at their linked community colleges. During training, a college learning assistant will be paired with a high school learning assistant from the feeder school, and these pairs of community college-high school students will then provide peer-assisted learning activities for underrepresented high school students in the targeted classes in the selected feeder high schools. The project director will coordinate the overall operation of the study groups at the high school with the teacher involved.

This consortium demonstrates the economy of scale concept in that it is far more economical to replicate a successful model (the Beacon Project at American River College) at two new colleges and three high schools rather than have each school develop a model of its own. In addition, it is more cost effective to have one project director, one clerical assistant to the director, one bookkeeper, and one training program for learning assistants (in the first year) rather than one for each separate school involved. The collaborative efforts of all three colleges in the Los Rios District also will make it easier to institutionalize the program districtwide beyond the project period.
Since the goal of the project is to increase access and success of underrepresented students, considerable savings in money and time for students and for the institution are realized when students are successful the first time they enroll in a course with a high drop-out rate. An increase in transfer rates to four-year institutions is also cost effective.

Getting underrepresented students into the professional work force faster is a saving to the California economy. In addition, the use of funding is more efficient in peer-assisted learning groups rather than tutoring one-on-one that is the general practice at community colleges. The consortium provides an efficient, tested model that fosters the savings stated above to be realized at all schools involved without unnecessary expenditures of time and money trying models which are not appropriate.
An area of utmost systemwide concern is student access and student success. There is an urgent need for making the entry into community college classes feasible for more people, for providing desired classes in impacted fields, and especially for providing a climate which enhances student motivation and facilitates student success. This is imperative if the community colleges are going to provide opportunities for Californians to utilize their potential in the workplace and as citizens, as the Master Plan for Community College demands.

This proposal specifically addresses the Board of Governors' initiatives to facilitate the supportive environment for access and success to:

Provide a cohesive and cooperative campus climate for all students within the educational setting;

   Intensify efforts to increase the number and success of underrepresented students in transfer programs;

Improve the retention of underrepresented students through instruction and services;

Identify potential teachers early and utilize methods for motivating them to enter
   the teaching profession.

During the last two years, American River College has developed and implemented a model for peer-assisted learning outside of the classroom which has dramatically increased student success. This model was funded by the American Association of Community Colleges (AACC) through the Kellogg Foundation in their Beacon grant program. One of the purposes of the American River College Beacon project was to train successful community college students to act as learning assistants for small collaborative groups of students outside of their normal class time. The American River College Beacon project was implemented in various math, chemistry, and biology classes which historically have high attrition rates. As a result of the project, more students successfully finished these classes on their first try, the average grades improved, and a supportive academic climate was fostered, particularly for at-risk students.

The intent of this two-year FII grant application is three-fold: to expand the project into other disciplines, to extend the Beacon project to the
other two colleges in our district, and to begin a similar project in three feeder high schools which have a large percentage of underrepresented students. By conducting the project on three college campuses as well as in three feeder high schools, the benefits of the project can be extended to more students, can be used at colleges which have larger numbers of underrepresented students, and can be started at earlier stages of students' educational development. This project impacts the board's initiatives as follows:

As clearly documented in the Beacon project at American River College, the collaborative group approach will foster more cohesiveness in the classes and a more cooperative and supportive campus climate for all students.

Based upon the statistics in the Beacon project, this project will undoubtedly increase student success, including that of underrepresented students.

By enabling students to succeed in a class the first time they enroll, students will matriculate through their educational programs at a faster rate and other students will have greater access to the impacted classes.

More students including underrepresented have reported they are now considering a teaching career in the math and science fields due to their Beacon participation. This effect will be extended to a larger number of students at different schools in various fields in the expanded project.

As student success increases, transfer rates to higher education will improve, students will be more competitive in the workforce, and high school students will be more successful and more likely to pursue a college education.
The specific eligible program being addressed is a nontraditional method of instruction: peer-assisted learning groups outside of class. These structured groups are established during the first two weeks of class and everyone is encouraged to participate. Incentives are provided which tie the supplemental work in the groups to the grading system for the class in order to emphasize the importance of these team building groups. Learning assistants who have previously completed the class with an A or B grade are trained in tutoring methods, with a focus on group collaborative methods. These learning assistants then meet with their learning groups three hours per week in order to discuss course concepts and problems.

Whenever possible, the groups use active learning techniques, such as explaining concepts to the rest of the group. The extra practice in quantitative problem solving as well as the building of skills in critical thinking, communication, and interpersonal relationships with diverse students all contribute to enhancing student success, building self-esteem, and providing a campus climate more conducive to learning. This addresses the Basic Agenda Priority of student access and success as previously mentioned in section 1.
Student access and success is the critical need being addressed in this grant. As stated in the newly released report of the Commission on Innovation to the Board of Governors of the California Community Colleges, "A workable pluralism in California requires that all citizens obtain equal access to economic and social opportunities and have political voice." Access to these opportunities in the workforce requires success in the completion of the education required by the jobs of the 21st century. These jobs will require a high level of technical and overall literacy, critical thinking and problem solving skills, and the ability to work as teams in solving problems of great complexity.

Access is not only making the entry of students into the community college pipeline more possible but enabling them to be successful in completing their educational goals in order to transfer or enter the workforce. Many students are underprepared for many college-level courses and lack the self-discipline and study habits necessary to meet the rigor of college classes.

Of particular concern is improving access and success for underrepresented students. In these tight economic times, it is more difficult to make educational opportunities accessible to all. Currently, many of the science and math classes which students need are impacted, which results in delays in taking classes and thus slows a student's progress through the system. Of equal or greater importance is providing the structure and campus climate which enables students to succeed.

One of the most significant problems facing college institutions as a whole are high attrition rates and lack of student success where success is defined as completing a class with a grade of A, B, or C. Although classes may be full in the first week, some classes have attrition rates of 20, 30, or 50% by semesters end. This is costly since it lowers the productivity of the faculty and the students have lost the money invested as well as their time in terms of the number of semesters needed to complete their degrees. Since repeating students are occupying seats needed by other students, the result is less access.

At American River College, the overall success rate for all students is 64% (a statistic which has remained constant over a 10-year period). However, the overall success rate of first-term freshmen is 49%. If this same statistic is broken down by ethnic groups, the
overall success rate for first-term freshmen is as follows, including the GPA: African-American (34.7%, 1.23), American Indian (40.2%, 1.41), Asian (56.6%, 2.03), Hispanic (44.2%, 1.56), and white (50.7, 1.79). Assessment scores for freshmen are very similar to those of the overall school population, so that the freshmen demonstrate the "tested" ability to succeed. Clearly there is a problem when more than half of the freshmen students do not succeed in their classes. The statistics are similar at the other two colleges of our district.

As can be seen from above, success rates for underrepresented students are even more dismal than for the student population as a whole. This is particularly true in the math and science areas but there are other areas with similar problems. The American Council on Education, based on the most recent census, shows that African-Americans, American Indians, and Hispanics often fail to graduate from college. (Please see appendix.)

In many instances, the numbers of underrepresented coming from feeder schools to the community college is much less than the actual number graduating from the high schools. Programs are needed which not only encourage high school students to begin college but also which develop strong academic skills while these students are still in high school.

According to numerous recent reports, including Campus Life: In Search of Community (Ernest Boyer, 1990), Building Communities: A Vision for a New Century (Commission on the Future of Community Colleges, 1988), and Building Community (John Gardner, 1991), the need for building community and creating a campus climate conducive to success by all students on community colleges is imperative. Most of these commuter students work many hours outside of school and many have family obligations and other time conflicts which prevent them from easily integrating into the campus life. New approaches are needed which facilitate community building and which create an academic climate where diverse students feel welcome and supported on campuses throughout the state.

This project addresses these problems common to all community colleges. During the last two years, the peer-assisted learning model was developed and tested in several classes at American River College. in this model, trained learning assistants facilitated collaborative learning groups three hours per week outside of class. The learning assistants worked closely with the classroom instructors and met collaboratively once a month to discuss successes and
problems. The Beacon peer-assisted learning groups have dramatically increased the success rates of the participants in targeted math and science classes. As can be seen from the data in the appendix, retention rate and grades improved. In addition, the participants have reported a greater sense of community on the campus, more support from fellow students and from teachers, and a greater sense of well-being regarding their studies at college.

The current proposal will be modeled after the successful Beacon project at American River College. The model will be extended to new disciplines, such as physics, anthropology, accounting, and psychology. The model will be extended to two new colleges and tested in three feeder high schools to these colleges.

The solution outlined for this proposal was chosen over the alternatives due to the success of the Beacon project in the selected classes in which it was used. We believe this is the best alternative because:

The heart of the project is improving the participants' problem solving, critical thinking, and team-building skills essential to the workforce of tomorrow. The learning assistants and student participants report a much greater sense of community at the college and more success in other classes.

Several of the learning assistants are now considering teaching (either high school or college) as a profession.

Faculty were brought together in developing the project who had seldom interacted, who had similar problems with their classes, and who creatively problem-solved solutions to these problems.

Increased student self-esteem has resulted which in turn results in increased student success. The project encourages students to develop their own study groups. High school students can be reached before they enter college. The project will directly impact a large number of students (about 2200 in two years).
Underrepresented community college and high school students constitute the majority population to be served by this project. Annually 960 college students will be participants, 60 college students will be learning assistants, 72 high school students will be participants, and 9 high school students will be learning assistants. Courses targeted are transfer courses with high drop-out rates. Classes involved will include introductory biology, freshman chemistry, preparatory chemistry, intermediate algebra, pre-calculus, calculus, introductory earth science, freshman physics, accounting, physical anthropology, psychology, and drafting.

The program will help build an academic and emotional support group for commuter students who are traditionally isolated from campus life and who study independently without benefit of group discussion and tutoring.

One major problem facing the community college and high school systems is that the population which this project will serve (underrepresented students) hasn't yet achieved the same success as the general population. The project is designed to increase the access and success of this population.

The short-term impact of the project on the target population is to improve student self-concept, to learn the skills necessary for building study/support groups, to increase retention, and to improve grades in targeted classes.

The long-term impact of the project on the target population is a significant increase in transfer rates to four-year institutions, and the transfer win occur at a faster rate due to the target population completing classes on the first attempt. The high school population will demonstrate a significant increase in success, college enrollment, and retention.
The peer-assisted learning model conducted outside of class will be extended to three new disciplines at American River College by June 30, 1995.

Two additional colleges will have implemented the peer-assisted learning models, outside of class instruction, by June 30, 1995.

Three feeder high schools will have implemented the peer-assisted learning model, outside of class instruction, by June 30, 1996.
The project director and contact person at American River College will implement the extension of the peer-assisted learning model conducted outside of class (the Beacon Project) to new disciplines by selecting instructors from accounting, anthropology, and psychology as well as math and science, to participate in this project. The contact person at each college will be selected from the group of instructors who have been, or will be, involved in the peer-assisted learning project.

The project director and contact people at the three community colleges will oversee the selection of 20 interested, committed instructors from three colleges in the spring of 1994 to participate in the project. The contact person and instructors will jointly select classes that will be targeted and will discuss, and agree upon, the implementation of the project. Instructors will identify and submit the names of 60 students who have successfully completed the targeted courses and who will work with the project faculty as learning assistants. The instructors and learning assistants will make a one-year commitment to the project, and the participating students in study groups will be committed for the one semester of their targeted course.

The project director will coordinate a collaboration among Learning Resource Center staff at all three colleges to discuss the training of students to become lean-ling assistants competent in the techniques necessary in directing peer-assisted learning groups. Staff at the Learning Resource Center at American River College will share the expertise they gained in two successful years of the Beacon Project to train students from all three techniques. The students will be trained as learning colleges in peer-assisted learning assistants at American River College during the summer of 1994 by taking a course in group tutoring developed as part of the Beacon project. Instructors will administer an attitudinal pre-test on self-concept and campus climate to all students in their targeted classes very early in the semester. Peer-assisted learning groups of 5-12 students will begin meeting three hours weekly in the fall and spring semesters. The study groups will focus on problem solving and critical thinking skills as these relate to class concepts and supplemental materials.

Since people who work well in groups and who possess confidence and self-esteem tend to be successful in the job market, the study groups will also focus upon helping participants acquire the skills required to work well in groups as well as...
helping the participants grow in confidence and self-esteem. Developing a sense of belonging and community on the part of the participants will also be a goal of the study groups.

Each week the learning assistants will meet with the instructors to plan the work for the next week and to discuss the progress of the groups and receive suggestions. Each month the learning assistants will meet in groups to receive further training and to have an opportunity to share experiences and advise each other. The contact person at each college who conducts these monthly meetings will solicit information from both the learning assistants and the participants concerning suggestions for improvement of the project. At the end of each semester, instructors will administer an attitudinal post-test, and using focus groups, the researcher will collect anecdotal information to be used in evaluation of attitudinal changes. The researcher will also analyze the results of the pre- and post-test.

In the second year of the project, the project director will oversee the process of joining the high school feeder schools with their linked community college in the peer-assisted learning project. The college peer-assisted learning groups outside of class will be formed and conducted just as they were in the first year. In the second year, however, the learning assistants will be trained at their own campus Learning Resource Center. In addition, in the spring of 1995 the project director and one high school math or science teacher at each feeder high school will select classes to target and then select three advanced math and/or science students to be trained as learning assistants. This training will occur at each linked college Learning Resource Center. The high school learning assistants will be trained alongside the college learning assistants during the summer of 1995 and both will be committed to the project for one year.

The high school/community college learning assistants will form partnerships to work with small groups of high school students from targeted math and science classes. The project director and the high school teachers will plan the small groups in such a way that underprepared students will choose to participate. The weekly peer-assisted study sessions will be conducted much like the sessions at the community college level but will be modified to meet the different needs of high school students. The high school learning assistants and their teachers will meet weekly to plan and discuss the study groups. Teachers will administer an attitudinal pre-test early in the school year, and a post-test at the end of the school year. The researcher will analyze the results of these tests. In addition, once every two weeks
the community college learning assistant who is paired with the high school learning assistant -will meet with learning group at the high school. The project director and participating teachers will oversee this collaboration among the learning assistants.

Once each semester the researcher will meet with the high school study groups to solicit anecdotal information from both participating students and learning assistants to be used both in evaluation of attitudinal changes of the participants and in providing suggestions for improvement and modification of the project itself.

At the end of each semester, each college researcher will prepare a report of success rates of the participating students. Teachers at the high schools will prepare a similar report on the high school participants at the end of the school year.
Expected Outcomes

The overall outcome of this project will be further development of a model which will have been tested at three colleges of an urban/suburban community college district with a large population of underrepresented students and in three feeder high schools, all with a large population of underrepresented students. This tested model can then be transferred to any college or high school in California and the nation. More specific project outcomes include the following:

The Los Rios community colleges and selected feeder high school classes which participate will have greater success rates for the participating students.

Student participants will report a greater sense of community within their institution.

The number of underrepresented students who are in the targeted classes will increase in numbers, retention, and success rates.

Student participants will demonstrate positive changes in self-concept and attitude toward others.

Student participants will show an increase in transfer rates to four-year institutions.

Participating high school students will show an increase in success rates and in college enrollments.

Potential for continued support

The most costly ongoing expense for this project, once it is developed, is salaries for the learning assistants who lead the collaborative groups. All California community colleges budget for peer tutoring, which traditionally is conducted one-on-one. By expanding to group tutoring, these dollars can be stretched. Other aspects of the project could be adopted with existing institutional resources. Creation of this holistic model will result in long-term, cost-effective student success strategies for community colleges and high schools.
Potential for Adaptation to Other Institutions

In the long run, it is the students within the state who will reap the benefits of a successful peer-assisted learning model program. This model can easily be expanded to any community college district, and by their nature, all community colleges are in need of such programs which reach out to "underrepresented," "at risk, and "reentry" students. American River College has already produced a video and a handbook about our successful Beacon project. Expanding this video to cover all aspects of this new project will be a logical extension of a project already begun. In addition, expanding the handbook to include a detailed description of the project, methods of implementation, training materials, sample study group materials, and evaluation materials will provide an invaluable resource for other institutions wishing to implement the model.
Success will be determined initially by completion of the objectives.

Grade and retention studies (based on fourth and ending weeks) will be compiled for each participating class at each college.

A pre- and post-test on student attitudes toward self-concept will be given to each student in each targeted class.

Focus groups for each of the participating groups including the faculty and staff, learning assistants, and the student participants will be conducted in the 16th week of each semester (college) to ascertain anecdotal information regarding project improvement and impact.

Similar studies will be done at the high school level at the beginning and end of the school year.

Long-term evaluation will include college entrance rates for the high school students and transfer rates of the college students.
The project director will prepare a handbook including a detailed description of the project, methods of implementation, training materials, sample materials used in the study groups, and all evaluation material including success studies and the results of the focus groups. This handbook will be sent to the vice president of instruction at each California community college. American River College will prepare a video for use by other colleges and faculty considering the project and the California Community College Chancellor’s Office. A description of the project will be disseminated through conference presentations, journal articles, and the newsletters of the American River College Teaching Resources Center, the Cosumnes River College Teaching, Learning, and Staff Development Center, and the Sacramento City College Staff Development Center, which are distributed statewide. The materials used for training of the learning assistants will be available for distribution. In addition, detailed materials used as supplemental materials in the weekly sessions of the classes will be available.
[No information provided in this document for this section.]