



Research to Make a Difference

UC/ACCORD

**How Outreach Programs Are Implemented
Affects Student Academic Achievement**

Winnie Wenyi Wang

A multi-campus research center harnessing UC's research expertise to increase the quality and equity of California's diverse public schools, colleges and universities.

How Outreach Programs Are Implemented Affects Student Academic Achievement

Winnie Wenyi Wang, UCLA

Education has traditionally been an avenue for students to rise out of poverty. There are myriad college preparation outreach programs that target low-income, minority students. To date, there is little research evidence of the effectiveness of most outreach programs, leaving them vulnerable to budget cuts. Given the continuing under-representation of disadvantaged students in California's universities and the amount of money that is being spent on outreach efforts, it is important to understand how outreach programs affect the academic preparation and eligibility of students applying to college.

This study found that the "fidelity" or strength of implementation of an outreach program is a more crucial factor affecting student achievement than the program's particular content. The fidelity of program implementation was defined as the extent to which the site coordinators and advisors were able to implement the various components of the student outreach program at their school. Fidelity of program implementation significantly affected the number of Advanced Placement (AP) courses taken, the rate of AP courses passed, the percentage of students taking the SAT, and the number of applicants to UCLA, whereas program type affected only one variable, the mean SAT score.

The following is a list of the qualities related to program implementation that were most often mentioned in strong outreach programs, in which the K-12 schools embraced the outreach program and an effective mutually beneficial relationship was formed.

Main Features of "Strong" (High Fidelity) Program Implementation

- The school took ownership of the outreach program and was actively involved with every aspect of the program.
- The school partnered with the outreach program in changing its curriculum to offer more college preparatory courses.
- The administration helped select the students who participated in the program.
- The outreach personnel were welcomed at the school and treated as part of the school staff, which included full access to the students.
- The school and outreach personnel embraced the same missions and goals for the program.
- The school administrators, teachers, and counselors communicated with the outreach personnel openly and made sure there was time for such exchanges to occur.
- Students actively participated in the program, which was reflected in a high attendance rate.
- Parents were actively involved with the program and visited the schools College Center before or after work.

How Outreach Personnel Helped Strengthen Strong Schools

- Outreach personnel built strong relationships with the school administrators, teachers, counselors, parents, and students.
- Outreach personnel were able to forge personal connections with key figures in the schools to gain greater access to students.
- The senior outreach personnel were able to serve as valuable resources due to: (1) the number of years they worked at various schools; (2) the social networks they had access to; and/or (3) the experience they had in establishing mutually beneficial relationships at these schools.

Longitudinal Data from 32 High Schools

This four-year study examined 32 high schools in the Los Angeles area, using longitudinal, year-to-year data indicating school performance from 1993-2000. The 32 schools consisted of 16 that were involved with the Early Academic Outreach Program (EAOP) and 16 involved with the Career Based Outreach Program (CBOP). This project was a case study of UCLA's response to the elimination of affirmative action through the creation of CBOP and the continued outreach activities of EAOP. The comparative effectiveness of EAOP and CBOP were assessed using eleven measures of academic preparation and competitive eligibility. The outreach programs were similar in content, except that CBOP had an added service-learning component. Twenty-three interviews were conducted with outreach staff and personnel to gauge the fidelity of program implementation.

Fidelity of Program Implementation Matters

The quality of the relationship between the UCLA outreach personnel and the school personnel, the length of time the UCLA outreach personnel had been working at each school, and the level of involvement the school maintained with the outreach program all factored into the criteria used to make judgments about the fidelity of program implementation. Schools were categorized into "weak," "medium," and "strong" levels of program implementation.

This study found that outreach programs are effective in proportion to the fidelity of their implementation. Fidelity of program implementation produced many significant effects. Fidelity appears to enhance the rate of AP courses taken, the rate of AP courses passed, the percentage of students taking the SAT, and number of applicants to UCLA. The pattern was consistent in that the schools with the weakest program implementation had the smallest changes in students' academic preparation and competitive eligibility, and the schools with the strongest implementation produced the greatest changes.

Table 1- Mean Difference of Pretest and Posttest Rate of AP Courses Taken by Fidelity of Program Implementation

Fidelity	Number of Schools	Pretest Mean of Rate of AP Courses Taken	Posttest Mean of Rate of AP Courses Taken	Mean Difference
"weak"	10	0.165	0.213	+0.048
"medium"	14	0.107	0.177	+0.070
"strong"	8	0.183	0.327	+0.144

Table 2- Mean Difference of Pretest and Posttest Mean of Rate of AP Courses Passed by Fidelity of Program Implementation

Fidelity	Number of Schools	Pretest Mean of AP Course Passage Rate	Posttest Mean of AP Course Passage Rate	Mean Difference
"weak"	10	0.101	0.123	+0.022
"medium"	14	0.062	0.092	+0.030
"strong"	8	0.121	0.224	+0.103

Table 3- Mean Difference of Pretest and Posttest Percentage of Students Taking the SAT by Fidelity of Program Implementation

Fidelity	Number of Schools	Pretest Mean of Percentage of Students Taking the SAT	Posttest Mean of Percentage of Students Taking the SAT	Mean Difference
"weak"	10	0.0718	0.0606	-0.0112
"medium"	14	0.0622	0.0641	+0.0019
"strong"	8	0.0896	0.0920	+0.0024

Table 4- Mean Difference of Pretest and Posttest Applicants to UCLA by Fidelity of Program Implementation

Fidelity	Number of Schools	Pretest Mean of Applicants to UCLA	Posttest Mean of Applicants to UCLA	Mean Difference
"weak"	10	48.43	41.90	-6.53
"medium"	14	42.55	39.79	-2.76
"strong"	8	59.28	68.50	+9.22

In Tables 1-4 there is a hierarchy of the quality of implementation from “weak,” “medium,” to “strong” that is reflected in the mean differences and displayed on a continuum. All twelve mean differentials are consistent; that is, in every table there is a larger positive mean difference as one moves from “weak” to “strong” schools. The fidelity of program implementation was found to be the most important factor in influencing the students’ ability to achieve academically.

CBOP’s Additional Enrichment of Service-learning

- Service-learning is defined as any community service experience that further enriches traditional course content and understanding. High school students involved with the CBOP outreach program received tutoring from UCLA undergraduates. Some of these high school students, in turn, also tutored junior high school students. The study was not able to definitively ascertain whether service-learning provided valuable additional enrichment in increasing student achievement. CBOP was more effective than the traditional EAOP approach in preparing high school students to perform well on the SAT. Future research needs to further investigate the benefits of service-learning.

POLICY IMPLICATIONS

Schools should be required to report data of student participation in outreach programs to the Department of Education.

A major reason that very little is known about the effectiveness of outreach programs is because of the limited data available. Data need to be collected for individual student participation in outreach programs. Tracking the number of hours students are actually involved in a particular program would provide the best indication of the amount of exposure students have to the program and the services they received. Since the available data dictate the scope of evaluation studies that can be conducted, more thought needs to be given to the kinds of program data that are currently being collected.

Data need to be carefully examined, cleaned, and corrected.

Several serious errors in ninth grade enrollment data were detected in the California Department of Education’s California Basic Education Data System (CBEDS). These errors have the potential to significantly alter research findings and recommendations if extensive checks are not performed to ensure that the data are usable.

Budget stability and consistency is essential to raising student achievement.

Fluctuations in the budget for outreach programs can greatly affect the academic preparation and competitive eligibility of students applying to college. The amount of time outreach personnel can dedicate to students, the professional development given to teachers, the

quality of test preparation, and the informational sessions given to parents and high school personnel are all dependent upon state financial resources.

Outreach personnel need to watch for early warning signs of administrative disregard for the program.

If school administrators, teachers, and college counselors appear to treat the outreach effort as “just another program,” it is likely that they see little value in the existing outreach effort and its mission, or believe the program to be ineffective. Thus, if school personnel do not think the program is beneficial to their students and view it as a burden, it is unlikely that students, teachers, counselors, and administrators will become consistently involved with the program. Outreach personnel need to be alerted to such early warning signs of program ineffectiveness, and these verbal and nonverbal clues should be seriously addressed early in the school year.

Involvement of teachers is crucial to the success of outreach programs.

Teachers are the direct gatekeepers of access to students. If teachers have not bought into the mission and purpose of the outreach program, they are not likely to allow their students to be pulled out of their classrooms to receive counseling from outreach personnel, nor are they likely to allow time in their classrooms for informational sessions. Greater incentives need to be given to teachers to encourage their participation and cooperation with outreach programs.

UC/ACCORD
Research to Make a Difference

UNIVERSITY OF CALIFORNIA
ALL CAMPUS CONSORTIUM ON
RESEARCH FOR DIVERSITY

Jeannie Oakes, Director

Daniel Solorzano, Associate Director

1041 Moore Hall
Box 951521
Los Angeles, CA 90095-1521

310-206-8725 Office
310-206-8770 Fax
ucaccord@ucla.edu

www.ucaccord.org