



**READ-925 Student Success and Retention by Peer Tutor Access
Spring 2009 and Spring 2010**

Purpose: This report examines students who earned a grade on record (GOR) at Crafton Hills College (CHC) in READ-925 in the spring of 2009 and compares their retention and success with students enrolled in READ-925 in spring of 2010.

Overview: A mentor program was established and piloted at CHC in the spring of 2010 at which time one peer tutor was assigned to assist in each READ-925 class. The peer tutor worked directly in the classroom with all of the students and when appropriate met with students outside of class to provide additional help. Specifically tutors helped student's access and use web-based computer reading programs, provided one-on-one help to students with reading exercises, and during group-work, the reading tutor monitored the groups and helped keep them on task.

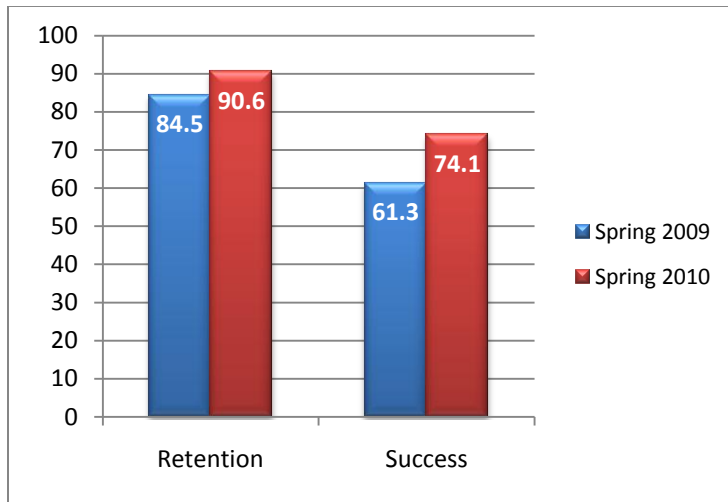
The peer tutors were all former students who had completed READ-078, the highest level of the reading program at CHC. Specifically, there were four reading tutors selected by the instructors, and they were chosen because of their grades, compatibility with their classmates, "soft" skills, and knowledge of the reading program, i.e. reading skills, and computer programs used with the reading students. All of the reading tutors attended every class and met with reading faculty and / or the reading technicians once a week.

Prior to the start of the spring semester, the reading tutors were College Reading & Learning Association (CRLA) trained by the CHC learning resource center staff. In addition, the tutors had formal scheduled meetings with the instructors each week for the first month and frequent informal meetings during the remainder of the semester. According to reading instructors, the READ-925 students benefited from having the instructor and reading tutor in the classroom at the same time, listened well to the "veteran" tutor-students, and were able to learn about college life from the tutors.

Summary of Findings:

- The overall spring 2010 retention rate of students enrolled in READ-925 (90.6%) was higher than students enrolled in spring 2009 in READ-925 (85.4%).
- The overall spring 2010 success rate of students enrolled in READ-925 (74.1%) was substantially ($ES=.28$) and statistically significantly ($p=.021$) higher than students enrolled in spring 2009 in READ-925 (61.3%).

Figure 1: Overall Retention and Success of READ-925 students Spring 2009 and Spring 2010



Methodology: A file of all students enrolled in READ-925 in spring of 2009 and spring of 2010 was generated from Datatel. To get an accurate comparison, instructors who taught in both semesters were compared to themselves. To protect the identity of individual instructors, they are listed in no particular order and identified only by a letter. Coding was created to identify students who were successful (earned an A, B, C, or CR grade) or unsuccessful (earned a grade of D, F, FW, NC, I, or W). Success rate was calculated by dividing the number of successful grades by the number of grades on record (GOR; A, B, C, D, F, P, NP, I, or W). Retention rate refers to the number of students who earned an A, B, C, D, F, P, NP, or I divided by the number of GOR.

Effect Size and Statistical Significance. The effect size statistic is commonly used in meta-analyses. A meta-analysis uses quantitative techniques to summarize the findings from studies on a particular topic to determine the average effect of a given technique. In this study, the spring 2010 students received peer-tutoring while the 2009 students did not, and the effect size is a measure of the effectiveness of the peer-tutoring. One method of interpreting effect size was developed by Jacob Cohen. Jacob Cohen defined “small,” “medium,” and “large” effect sizes. He explained that an effect size of .20 can be considered small, an effect size of .50 can be considered medium, and an effect size of .80 can be considered large. Effect size is calculated by dividing the difference of the two means by the pooled standard deviation. It is important to mention that the number of students in each group does not influence Effect Size; whereas, when statistical significance is calculated the number of students in each group does influence the significance level (i.e. “p” value being lower than .05). Accordingly, using Cohen as a guide, a substantial effect would be .20 or higher.

Findings: Of the READ-925 students enrolled in spring 2009, 61% were successful and 85% were retained. With the addition of peer-tutors in spring 2010, the retention rate of students enrolled in READ-925 improved by 6% resulting in a retention rate of 91%. In addition, students enrolled in READ-925 in the spring of 2010 were substantially more likely to be successful. The success rate increased from 61.3% to 74.1% for READ-925 students who had access to a peer tutor, an increase of 13%.

Table 1. Spring 2009 and Spring 2010 Success and Retention Rates for READ-925 Students with Effect Sizes and P-Values.

Outcome by Course	Spring 2009 No Mentor			Spring 2010 With Mentor			Effect Size & 95% CI Lower & Upper ES			P-Value
	#	N	%	#	N	%	ES	Lower	Upper	
Retention										
Instructor A	36	52	69.2	22	25	88.0	0.44	-0.04	0.92	.075
Instructor B	21	24	87.5	25	28	89.3	0.03	-0.52	0.58	.845
Instructor C	18	20	90.0	24	26	92.3	0.07	-0.51	0.65	.792
Instructor D	45	46	97.8	55	60	91.7	-0.26	-0.64	0.13	.177
Overall	120	142	84.5	126	139	90.6	0.18	-0.05	0.42	.120
Success										
Instructor A	24	52	46.2	15	25	60.0	0.28	-0.20	0.76	.261
Instructor B	16	24	66.7	23	28	82.1	0.35	-0.21	0.89	.206
Instructor C	13	20	65.0	15	26	57.7	-0.14	-0.72	0.44	.624
Instructor D	34	46	73.9	50	60	83.3	0.22	-0.17	0.60	.240
Overall	87	142	61.3	103	139	74.1	0.28	0.04	0.51	.021

* A .20 effect size corresponds to a Pearson r of .10. The effect size represents the magnitude of the difference between the target and the baseline measure. Using an effect size increases the likelihood that the difference is not only statistically significant but practical as well.

**The P-Value is an indication of statistical significance. Statistical significance exists when the P-value is less than .05 indicating that the difference between the groups is likely to be due to chance only 5 out of 100 times. It is important to note that the p-value is influenced by the number of cases.