

Office of Research & Planning

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Fall 2009 Success, Retention, and Persistence rates of College Life (CHC) and Personal Career Development (PCD) Students

Overview: This report examines students who were enrolled in a College Life (CHC) or Personal Career Development (PCD) course at Crafton Hills College in the fall of 2009, and compares the success, retention, and persistence of those students to all other students enrolled in sections with those students but not concurrently enrolled in a CHC or PCD course. CHC and PCD courses are intended to introduce students to the college experience, help them to develop personal planning and career development skills, and teach comprehensive learning and academic strategies to increase success.

Summary of Findings:

- The fall 2009 success rate of students enrolled in a CHC or PCD course (74.3%) was statistically significantly (p<.001) and substantially (ES=.30) higher than students enrolled in the same sections that were not concurrently enrolled in a CHC or PCD class (66.9%).
- The fall 2009 retention rate of students enrolled in a CHC or PCD course (93.3%) was statistically significantly (p<.001) and substantially (ES=.23) higher than students enrolled in the same sections that were not concurrently enrolled in a CHC or PCD class (87.9%).
- CHC and PCD students statistically and significantly (p=<.001) persisted at a substantially (ES=.40) higher rate (90.4%) than students who did not take a CHC/PCD course (71.7%)



Figure 1. Success, Retention, and Persistence of students enrolled in sections with CHC/PCD students.

Methodology: A database which contained an unduplicated list of students who successfully completed either CHC-090X4, CHC-100, or PCD-111 in fall of 2009 was generated from Datatel. A file of students enrolled in fall of 2009 in all other sections with the students concurrently enrolled in one of the CHC/PCD courses was created using Datatel. 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. Persistence identifies the number of students in fall who earned a GOR and who also earned a grade on record in the following spring semester. Persistence rate is the percent of fall 2009 students who earned a GOR in spring 2010.

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 a number of studies on a particular topic to determine the average effect of a given technique. 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: CHC/PCD students successfully completed 74.3% of the courses they were enrolled in and were retained in 93.3% of the courses in which they enrolled. Conversely, students enrolled in the same sections with CHC/PCD students but did not take a CHC or PCD course successfully completed 66.9% and were retained in 87.9% of the courses in which they enrolled. CHC/PCD students were also substantially more likely to persist (90.4%) than non-CHC/PCD students (72.6%).

Outcome	CHC/PCD Students			Students not concurrently enrolled in a CHC/PCD course			ES*	P- Value**
	#	Ν	%	#	Ν	%		
Fall 2009 Success	199	268	74.3	4365	6524	66.9	.30	<.001
Fall 2009 Retention	250	268	93.3	5736	6524	87.9	.23	<.001
Fall 2009 to Spring 2010 Persistence	85	94	90.4	3590	4944	72.6	.40	<.001

Table 1. Fall 2009 Success, Retention, and Persistence Rates for Students with Effect Sizes and P-Values by CHC/PCD enrollment.

* 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

**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.