Fall 2008 Success, Retention, and Persistence rates of Yucaipa High School students by SOA³R Participation

Overview: This report examines Yucaipa High School 2008 students who enrolled at CHC in the fall of 2008, and compares SOA³R and non-SOA³R participants on success, retention, and persistence. SOA³R refers to new Senior Orientation, Application, Assessment, Advising and Registration. SOA³R provides students with the opportunity to participate in the enrollment process required for new students. Crafton Hills Staff are available at the high school campus to assist prospective students with their applications, registration, and a first year Ed Plan. In addition, students are encouraged to enroll in PCD-050, a .25 unit new student orientation class which ensures priority registration for the fall semester. The effect of PCD-050 on SOA³R students was not examined because almost every SOA³R student had taken PCD-050.

Summary of Findings:
- The fall 2008 CHC success rate of Yucaipa High School students who were SOA³R participants (75.3%) was statistically significantly and substantially higher than Yucaipa High School students who did not participate in SOA³R (57.6%).
- The fall 2008 CHC retention rate of Yucaipa High School students who were SOA³R participants (89.9%) was statistically significantly and substantially higher than Yucaipa High School students who did not participate in SOA³R (83.6%).
- SOA³R students persisted at a substantially higher rate (90.9%) than non-SOA³R students (83.1%).

Figure 1. Success, Retention, and Persistence of CHC students from Yucaipa High School by SOA³R Status.

Methodology: A database which contained an unduplicated list of students from Yucaipa High School who participated in the SOA³R program was provided by the CHC Counseling Office. A file of all students enrolled in fall of 2008 who attended Yucaipa High School in 2007-2008 was generated from 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 rate identifies the number of students in fall who earned a GOR and who also earned a grade on record in the following spring semester.

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: Yucaipa High School students who did not participate in SOA³R successfully completed 58% of the courses they were enrolled in and were retained in 84% of the courses in which they enrolled. Conversely, Yucaipa High School students who participated in SOA³R successfully completed 75% of the courses they were enrolled in and were retained in 90% of the courses in which they enrolled. SOA³R students were also substantially more likely to persist (91%) than students Yucaipa students who did not participate in SOA³R (83%).

Tables 1 and 2 display the success, retention, and persistence rates for CHC students who transferred from Yucaipa High School (SOA³R and non-SOA³R) in fall of 2008.

Table 1. Fall 2008 Success and Retention Rates for Yucaipa High School Students with Effect Sizes and P-Values by SOA³R Status.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Yucaipa HS Student non-SOA³R</th>
<th>Yucaipa HS SOA³R Student</th>
<th>ES*</th>
<th>P-Value**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2008 Success</td>
<td>151</td>
<td>298</td>
<td>.38</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Fall 2008 Retention</td>
<td>219</td>
<td>356</td>
<td>.19</td>
<td>.022</td>
</tr>
</tbody>
</table>

* 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.

Table 2. Fall 2008 to Spring 2009 Persistence Rates for Yucaipa High School Students with the Effect Size and P-Value SOA³R Status.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Yucaipa HS Student non-SOA³R</th>
<th>Yucaipa SOA³R Student</th>
<th>ES*</th>
<th>P-Value**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2008 to Spring 2009 Persistence</td>
<td>64</td>
<td>90</td>
<td>.23</td>
<td>.135</td>
</tr>
</tbody>
</table>

* 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.

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