Supplemental Learning: Analysis of Success and Retention Rates-Fall 2012
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At the request of the Supplemental Learning Sub-Committee, a sub-committee of the Skills4Success Committee, the Office of Institutional Development and Technology examined the retention and success rates of students who participated in Supplemental Learning (SL) during the Fall 2012 semester. More specifically, retention and success rates of students who participated in Supplemental Learning were compared to the retention and success rates of students who did not participate in SL activities during the Fall 2012 semester, but were enrolled in the same courses. College of the Canyons’ SL program provides support through faculty developed workshops, Guided Learning Activities (GLAs), and Practice Jams (PJ) for students. GLAs include self-paced supplemental activities designed by faculty members for students. Students participating in GLAs receive support from tutors as needed. Practice Jams are an additional opportunity for students to practice what they learn in workshops. SL activities are designed for students to increase knowledge of course content and develop skills needed to be successful at College of the Canyons. Between the Spring 2010 and Fall 2012 semesters, SL has cumulatively served just over 18,000 students. In addition, SL has offered approximately 2,300 Supplemental Learning activities/workshops between Spring 2010 and Fall 2012.

Number of Workshops Attended and/or Supplemental Learning Workshops Completed by Students:

Overall, 1,888 students (unduplicated count) with valid IDs participated in Supplemental Learning activities in Fall 2012. This is down 12 percent compared to Fall 2011. This may be attributed to the implementation of limited hours in which students could participate in SL activities in 2012. The sum of attendance in all SL activities during the Fall 2012 semester was 7,488. More specifically, 37 percent of students who participated in SL participated in one to two activities, one-third participated in three to four activities (30 percent), and 19 percent participated in five to six activities. Eight percent participated in seven to eight activities and approximately 7 percent participated in nine or more activities. See Table 1 for details.

Courses for Which Students Received SL Assistance: Students who participated in SL were enrolled in a variety of courses for which they sought SL assistance. Courses from the following top 20 departments in which students indicated they were participating in SL were: English, Mathematics, History, Sociology, Psychology, Business, Political Science, Communication Studies, Biological Science, Kinesiology Physical Education-Activity, Health Science, Music, Philosophy, Anthropology, Counseling, Computer Information Technology, Art, Media/Arts/Entertainment (MEA), Early Childhood Education (ECE), and Photography.
**Reasons for Participating in Supplemental Learning:** Prior to Fall 2012, students who participated in SL activities were asked to indicate if attendance was required by instructors, recommended by instructors, offered as extra credit by instructors, or if they volunteered to participate. However, during the Fall 2012 semester, the attendance tracking system for Supplemental Learning changed and the reasons for student participation was not tracked within this new system in the same way it was previously. The TLC (Learning Center) tracked the data separate from the new system and only required participation was tracked. With the exception of the English workshops and Math Practice Jams, data indicated that, overall, the majority of students within the various SL activities participated because it was required. This is consistent with prior SL research briefs. See Table 2 for details.

**Comparison of Retention and Success Rates:** Similarly as the Fall 2011 semester, the overall retention and success rates were higher for students who participated in SL during the Fall 2012 semester compared to those who did not, but were enrolled in the same courses (see Figure 1 for details). The overall retention rate for students who participated in SL during the Fall 2012 semester was one percent lower than those who participated during the Fall 2011 semester (95 percent – Fall 2012 and 96 percent – Fall 2011). The overall success rate was four percent higher than those who participated during the Fall 2011 semester (83 percent – Fall 2012 and 79 percent – Fall 2011).

For the Fall 2012 semester, retention rates varied from 92 to 98 percent and success rates varied from 76-88 percent, depending on the number of SL activities in which students participated. The overall retention rate in courses for those who participated in SL was seven percent higher than those who did not participate (95 percent – participants compared to 88 percent – non-participants). The overall success rate in courses for those who participated in SL was 11 percent higher than those who did not participate (83 percent – participants compared to 72 percent – non-participants).

### Table 2. Percentage of Attendance Required by Each Type of Activity.

<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>Percentage Required CCC</th>
<th>Percentage Required VC</th>
</tr>
</thead>
<tbody>
<tr>
<td>English GLAs</td>
<td>73%</td>
<td>65%</td>
</tr>
<tr>
<td>English Workshops</td>
<td>75%</td>
<td>55%</td>
</tr>
<tr>
<td>Math GLAs</td>
<td>95%</td>
<td>72%</td>
</tr>
<tr>
<td>Math Workshops</td>
<td>78%</td>
<td>65%</td>
</tr>
<tr>
<td>Math Practice Jams</td>
<td>--</td>
<td>54%</td>
</tr>
</tbody>
</table>

Note: Math Practice Jams were not offered at the Canyon Country campus during the Fall 2012 semester.
Comparison of Retention and Success Rates for Students Enrolled in Basic Skills English (English-071 and English-081) and Math (Math-025/026, -058, and -060):

**English:** Similar to the Fall 2011 semester (Parker, Meuschke, & Gribbons, 2013), students enrolled in basic skills English courses during the Fall 2012 semester and participated in SL activities had higher retention and success rates compared to students who did not participate in SL activities, but were enrolled in the same courses. Success rates increase significantly for students who participate in three or more activities compared to none. (see Figure 2 for details). Students who did not participate in SL during the Fall 2012 semester and were enrolled in the same basic skills English courses had a retention rate of 90 percent and a success rate of 70 percent. Retention rates ranged from 96 to 99 percent for students who participated in SL during the Fall 2012 semester and were enrolled in basic skills English courses. Success rates ranged from 74 to 94 percent during the Fall 2012 semester for students who participated in SL and were enrolled in basic skills English courses.

**Math:** Similar to the Fall 2011 semester (Parker, Meuschke, & Gribbons, 2013), students enrolled in basic skills math courses during the Fall 2012 semester and participated in SL activities had higher success and retention rates compared to students who did not participate in SL activities, but were enrolled in the same courses. Success rates increase significantly for students who participate in three or more activities compared to none. Students who did not participate in SL during the Fall 2012 semester and were enrolled in basic skills math courses had a retention rate of 82 percent and a success rate of 50 percent. Retention rates ranged from 90 to 98 percent during the Fall 2012 semester for students who participated in SL activities and were enrolled in basic skills math courses. Success rates ranged from 67 to 83 percent during the Fall 2012 semester for students who participated in SL activities and were enrolled in basic skills math courses (see Figure 3 for details).

**Discussion:** There has been a decrease in the number of students attending SL since the Fall 2011 semester. Similar to the Fall 2011 semester, the majority of students participated in one to four SL activities and participated as a requirement for their class during the Fall 2012 semester. While the data show that students benefit from attending SL at least once or twice, there is a demonstrable increase in success rates particularly for basic skills math and English.
students who participate at least three to four times during the semester. Overall, students who participated in SL had higher retention and success rates compared to those who did not participate, but were enrolled in the same courses.

**Recommendations:** Upon review of the results, the following recommendations should be taken into consideration:

- Encourage instructors, especially English, math, and instructors of courses that are among the top 20 courses with historically low success rates (see Top 20 Courses with Historically Low Success Rates: Fall 2009, 2010, and 2011 Research Brief #47), to incorporate Supplemental Learning into the curriculum and require participation as part of the course.

- Discuss implications for requiring attendance of at least three to four SL activities for students enrolled in basic skills math or English courses.

**References**


**Methods**

To conduct the analysis, Fall 2012 Supplemental Learning attendance data were obtained from the TLC Supplemental Learning Workshop, Guided Learning Activity, and Practice Jam database. Student ID’s from the database were matched with the MIS ID file. Data were then merged with the College’s grade file (USX referral file) from Fall 2012. To perform the analysis data were analyzed using the Statistical Package for the Social Science (SPSS, 2012).

**Notes:**

1.) Data for two students were not included due to invalid matches for IDs in the database from the TLC Lab and student IDs in Datatel.

2.) A possible delimitation of this study is that instructor grading practices were not analyzed.

3.) **Course Success:** defined as the percent of students successful in courses out of total enrolled in courses: Numerator = Number of students (duplicated) with A, B, C, CR/P; Denominator = Number of students (duplicated) with A, B, C, D, F, FW, CR/P, NC/NP, W, I. (This analysis uses the RP Group definition, which facilitates statewide comparisons.)

4.) **Course Retention** is defined as the percent of students retained in courses out of total enrolled in courses: Numerator = Number of students (duplicated) with A, B, C, D, F, I, CR/P, FW, NC/NP; Denominator = Number of students (duplicated) with A, B, C, D, F, I, W, CR/P, FW, NC/NP. (This report uses the RP Group definition, which facilitates statewide comparisons.)

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