# Institutional Effectiveness, Research, \& Planning <br> English Success Center Report 2015-16 

Feb. 23, 2017

Please note this report will be prepared annually, each summer. Due to circumstances beyond our control, reporting was delayed (Jan. 2017). This report examines the relationship between visiting Cerritos College's English Success Center (ESC) and academic outcomes of students enrolled in an English course during the 2015-16 school year. The report also compares academic outcomes between students who chose to visit the ESC and those who did not visit.

## Executive Summary

Students who visited the English Success Center were more likely pass and complete English courses than those who did not visit the English Success Center. Similarly, students who visited the center more often were more likely to pass and complete their course than students who visited less often.

## Overview of the Data

A total of 2,513 students visited the English Success Center during the 2015-16 school year. The students visited the center 12,000 times and spent about 2,800 hours there (Table 1). Of the students that used the ESC, most visited between one to five times (Figure 1). Approximately half $(1,049)$ of the students who visited the center were enrolled in an English course sometime during the school year. About 9\% of students who enrolled in an English course chose to visit the English Success Center (1,049 of a total 11,720 students enrolled in an English course).

Table 1. Frequencies for English Success Center Student Visits

| Variable | Minimum | Maximum | Total | Median | Mean |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Visits | 1.00 | 180.00 | $12,652.00$ | 2.00 | 6.55 |
| Minutes | .60 | 645.50 | $168,304.50$ | 43.50 | 57.68 |
| Hours | .01 | 10.76 | $2,805.08$ | .73 | .96 |

Figure 1. Counts of ESC Student Visits


## English Enrollments by Course

Table 2 shows the number of enrollments in each English Course. The middle column shows the number of enrolled students that visited the ESC. The last column shows the total number of students enrolled in the course throughout the 2015-16 school year. English 52 had the highest number of enrollees who visited the ESC $(1,008)$ and the highest total number $(8381)$.

Table 2. ESC Enrollments by English Course

| English <br> Course | Visited <br> ESC $^{*}$ | Total |
| :--- | ---: | ---: |
| 20 | 592 | 4227 |
| 50 A | 9 | 50 |
| 52 | 1,008 | 8381 |
| 72 | 223 | 1,237 |
| 100 | 859 | 6,276 |
| 102 | 42 | 588 |
| 103 | 343 | 2,368 |
| 106 | 1 | 48 |
| 107 | 8 | 117 |
| 221 A | 6 | 35 |
| $221 B$ | 1 | 23 |
| 222 | 6 | 47 |
| 225 | 3 | 43 |
| 226 | 4 | 30 |
| 227 | 1 | 62 |
| 228 | 10 | 110 |
| 230 A | 5 | 79 |
| $230 B$ | 8 | 66 |


| 232 | 2 | 33 |
| :--- | ---: | ---: |
| 233 | 0 | 11 |
| 234 | 1 | 33 |
| 235 | 8 | 50 |
| 240 | 18 | 150 |
| 241 | 2 | 24 |
| 245 | 0 | 35 |
| $246 A$ | 9 | 62 |
| $246 B$ | 4 | 65 |
| 248A | 3 | 34 |
| $248 B$ | 2 | 27 |
| 250 | 1 | 25 |
| 298 | 0 | 1 |
| 299 | 0 | 1 |
| Total | 3,179 | 24,338 |

*Students may be enrolled in multiple courses in the same term and throughout the school year.

## Demographic Data for ESC Users

Tables 3 through Table 5 show demographic data for students who used the English Success Center and students who did not use the center. The tables show that the two groups have similar gender (Table 3), ethnic (Table 4), and age (Table 5) composition.

Table 3. Comparison of ESC Users and Non-Users Enrolled in an English Course by Gender

| Gender | ESC Users |  |  | Non-Users |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Count | Percent |  | Count | Percent |
| Female | 632 | $60 \%$ |  | 5,689 | $53 \%$ |
| Male | 393 | $37 \%$ |  | 4,795 | $45 \%$ |
| Unknown | 24 | $2 \%$ |  | 187 | $2 \%$ |
| Total | 1049 | $100 \%$ |  | 10671 | $100 \%$ |

Table 4. Comparison of ESC Users and Non-Users Enrolled in an English Course by Ethnicity

| Ethnicity | ESC Users |  |  | Non-Users |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | Count | Percent |  | Count | Percent |
| Asian | 178 | $17 \%$ |  | 1,707 | $16 \%$ |
| Black | 35 | $3 \%$ |  | 248 | $2 \%$ |
| Hispanic | 657 | $63 \%$ |  | 7,173 | $67 \%$ |
| White | 19 | $2 \%$ |  | 264 | $2 \%$ |
| Other | 160 | $15 \%$ |  | 1,279 | $12 \%$ |
| Total | 1049 | $100 \%$ |  | 10671 | $100 \%$ |

Table 5. Comparison of ESC Users and Non-Users Enrolled in an English Course by Age Group

| Age Group | ESC Users |  |  | Non-Users |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Count | Percent |  | Count | Percent |
| 19 or younger | 131 | $12 \%$ |  | 2,061 | $19 \%$ |
| $20-24$ | 550 | $52 \%$ |  | 5,941 | $56 \%$ |
| $25-29$ | 155 | $15 \%$ |  | 1,540 | $14 \%$ |
| $30-34$ | 67 | $6 \%$ |  | 523 | $5 \%$ |
| $35-39$ | 42 | $4 \%$ |  | 248 | $2 \%$ |
| $40-49$ | 62 | $6 \%$ |  | 257 | $2 \%$ |
| 50 or older | 42 | $4 \%$ |  | 101 | $1 \%$ |
| Total | 1049 | $100 \%$ |  | 10671 | $100 \%$ |

## Academic Outcomes

GPA and Units Earned. Overall, students who used the English Success Center had better academic outcomes than students who did not use it. Table 6 shows that ESC users had higher cumulative GPAs, earned more units during the 2015-16 school year, and obtained more cumulative units.

Table 6. Means and standard deviations of academic outcomes for ESC Users and Non-Users

| Outcome | ESC Users |  |  | Non-Users |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $M$ |  | $S D$ |  | $M$ | $S D$ |
| Cumulative GPA | 2.74 |  |  | 2.36 | 1.05 |  |
| Term Units | 9.71 | 4.45 |  |  | 7.46 | 4.79 |
| Cumulative Units | 26.32 | 23.64 |  |  | 22.29 | 22.74 |

Student Success. Success rate was defined as the percentage of students earning a grade of A, B, C, or P (passing). Failure was defined as a student earning a grade of W, D, F, FW, or NP (not passing). Table 7 compares success rates for ESC users and non-users by course. ESC users had higher success rates in all English courses with the exceptions of English 107, 227, and 234. A chi-square test indicated that ESC users had higher overall rates of student success than non-users, $\chi^{2}(1)=206.33, p<.001$. We calculated the Relative Risk to assess the size of the effect of visiting the ESC on student success. This analysis showed that the risk of failure almost doubled ( $R R=1.83$ ) for students who did not visit the learning center.

Table 7. Success Rates by course for ESC Users and Non-Users

| English Course | ESC Users |  | Non-Users |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Total Enrolled | Success <br> Rate | Total Enrolled | Success Rate |
| 20 | 290 | 76\% | 952 | 62\% |
| 50A | 7 | 100\% | 11 | 92\% |
| 52 | 489 | 79\% | 2,022 | 62\% |
| 72 | 104 | 78\% | 243 | 64\% |
| 100 | 715 | 78\% | 2,227 | 60\% |
| 102 | 33 | 88\% | 256 | 76\% |
| 103 | 273 | 89\% | 880 | 70\% |
| 106 | 1 | 100\% | 23 | 74\% |
| 107 | 2 | 50\% | 33 | 57\% |


| 221A | 4 | $100 \%$ | 9 | $56 \%$ |
| :--- | ---: | ---: | ---: | ---: |
| $221 B$ | 1 | $100 \%$ | 14 | $82 \%$ |
| 222 | 6 | $100 \%$ | 17 | $61 \%$ |
| 225 | 3 | $33 \%$ | 11 | $46 \%$ |
| 226 | 4 | $100 \%$ | 18 | $82 \%$ |
| 227 | 1 | $0 \%$ | 31 | $62 \%$ |
| 228 | 8 | $88 \%$ | 40 | $78 \%$ |
| $230 A$ | 5 | $80 \%$ | 30 | $53 \%$ |
| $230 B$ | 8 | $88 \%$ | 33 | $73 \%$ |
| 232 | 1 | $100 \%$ | 23 | $100 \%$ |
| 234 | 1 | $0 \%$ | 21 | $81 \%$ |
| 235 | 7 | $100 \%$ | 23 | $70 \%$ |
| 240 | 15 | $80 \%$ | 69 | $82 \%$ |
| 241 | 2 | $100 \%$ | 7 | $50 \%$ |
| $246 A$ | 9 | $100 \%$ | 31 | $78 \%$ |
| $246 B$ | 3 | $100 \%$ | 45 | $90 \%$ |
| 248 A | 2 | $100 \%$ | 18 | $75 \%$ |
| $248 B$ | 2 | $100 \%$ | 10 | $71 \%$ |
| 250 | 1 | $100 \%$ | 8 | $73 \%$ |
| Total | 1997 | $80 \%$ | 7105 | $63 \%$ |
|  |  |  |  |  |

Completion. Completion rate was defined as the percentage of students that earned a grade in the course (A, B, C, D, F, P, or NP) and did not withdraw. ESC users had higher completion rates in all English courses, with the exceptions of English 107 and 234 (Table 8). A chi-square test indicated that ESC users were more likely to complete English courses than students who did not visit the ESC, $\chi^{2}(1)=203.78, p<.001$. Further analysis showed that the risk of failure to complete almost tripled ( $R R=2.67$ ) for students who did not visit the learning center.

Table 8. Comparison of Completion Rates for ESC Users and Non-Users by English Course

| English Course | ESC Users |  | Non-Users |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Total Enrolled | Completion Rate | Total Enrolled | Completion Rate |
| 20 | 290 | 90\% | 1,540 | 77\% |
| 50A | 7 | 100\% | 12 | 92\% |
| 52 | 489 | 92\% | 3,240 | 78\% |
| 72 | 104 | 90\% | 379 | 78\% |
| 100 | 715 | 91\% | 3,722 | 75\% |
| 102 | 33 | 97\% | 335 | 84\% |
| 103 | 273 | 93\% | 1,264 | 81\% |
| 106 | 1 | 100\% | 31 | 81\% |
| 107 | 2 | 50\% | 58 | 66\% |
| 221A | 4 | 100\% | 16 | 81\% |
| 221B | 1 | 100\% | 17 | 94\% |
| 222 | 6 | 100\% | 28 | 71\% |
| 225 | 3 | 67\% | 24 | 50\% |
| 226 | 4 | 100\% | 22 | 91\% |
| 227 | 1 | 100\% | 50 | 74\% |
| 228 | 8 | 100\% | 51 | 84\% |


| $230 A$ | 5 | $80 \%$ | 57 | $81 \%$ |
| :--- | ---: | ---: | ---: | ---: |
| $230 B$ | 8 | $100 \%$ | 45 | $82 \%$ |
| 232 | 1 | $100 \%$ | 23 | $100 \%$ |
| 234 | 1 | $0 \%$ | 26 | $81 \%$ |
| 235 | 7 | $100 \%$ | 33 | $85 \%$ |
| 240 | 15 | $93 \%$ | 84 | $89 \%$ |
| 241 | 2 | $100 \%$ | 14 | $79 \%$ |
| $246 A$ | 9 | $100 \%$ | 32 | $84 \%$ |
| $246 B$ | 3 | $100 \%$ | 40 | $85 \%$ |
| $248 A$ | 2 | $100 \%$ | 50 | $90 \%$ |
| $248 B$ | 2 | $100 \%$ | 24 | $75 \%$ |
| 250 | 1 | $100 \%$ | 14 | $71 \%$ |
| Total | 1997 | $92 \%$ | 11231 | $78 \%$ |

## Frequency of ESC Visits and Course Outcomes

We categorized ESC users according to their total number of visits during the 2015-16 school year. The categories were: minimal user ( 1 visit), casual user (2-5 visits), moderate user ( $6-10$ visits), frequent user (1120 visits) and extreme user ( 21 and more visits). The final two columns of Table 9 show the success and completion rates for each user type. The columns show a small increase in success and completion rates as the frequency of visits increases. Multilevel models showed that increases in the number of visits were associated with incremental increases in both outcomes. Table 10 shows that each visit to the English Success Center was associated with a $2 \%$ increase in the odds of student success (OR=1.02). Similarly, Table 11 shows that each visit was associated with a $19 \%$ increase in the odds of the student completing a given English course ( $O R=1.19$ ).

## Table 9. ESC User Profile Data

| User Type | ESC Students |  | Visits |  |  | Outcome Rates |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Percent of Total | Range | Average Number | Average Time | Success | Completion |
| Minimal | 308 | 29\% | 1 | 1.00 | . 81 | 81\% | 93\% |
| Casual | 408 | 39\% | 2-5 | 3.13 | 1.01 | 84\% | 95\% |
| Moderate | 142 | 14\% | 6-10 | 7.73 | 1.15 | 85\% | 93\% |
| Frequent | 109 | 10\% | 11-20 | 14.69 | 1.14 | 88\% | 94\% |
| Extreme | 82 | 8\% | 21 or more | 43.01 | 1.54 | 93\% | 96\% |
| Total | 1049 | 100\% |  | 7.45 | 1.01 | 84\% | 94\% |

Table 10. Multilevel Model Results Predicting Student Success from Number of Visits

| Fixed Effects |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | B | Odds <br> Ratio | SE | $\begin{gathered} z- \\ \text { ratio } \end{gathered}$ | $p$ |
| Intercept | 1.37 | 3.93 | 0.11 | 11.96 | <. 001 |
| Visits | 0.02 | 1.02 | 0.01 | 3.10 | <. 001 |
| Random Effects |  |  |  |  |  |
| Variable | Var | ance |  | SD |  |
| Student |  | . 36 |  | . 60 |  |
| Course |  | . 03 |  | . 18 |  |

Table 11. Multilevel Model Results Predicting Course Completion from Number of Visits

| Fixed Effects |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | B | Odds <br> Ratio | SE | $z-$ ratio | $p$ |
| Intercept | 11.93 | 151751.56 | <. 01 | 14477 | <. 001 |
| Visits | 0.17 | 1.19 | <. 01 | 216 | <. 001 |
| Random Effects |  |  |  |  |  |
| Variable | Variance |  | SD |  |  |
| Student | 246.76 |  |  | 15.71 |  |
| Course | . 84 |  |  | . 92 |  |

