



Institutional Effectiveness, Research, & Planning

Student Athlete Team Tutoring Room Report

December 4, 2017

This report examines the relationship between visiting Cerritos College's Student Athlete Team tutoring room and academic outcomes of student athletes who visited the facility during spring 2016, fall 2016, and spring 2017. The report also compares academic outcomes between students who chose to visit the student athlete team tutoring room and those who did not visit.

EXECUTIVE SUMMARY

- Team room users had higher English completion and success rates than a comparison group of students who did not visit the student success center.
- Team room users had had higher math completion rates than the comparison group. However, team room users and non-users had similar levels of math success.
- Among student athletes who used the center, those who visited the most often had the highest levels of completion and success.

Details of the Data

This report examines completion and success among the student athletes who chose to use the team tutoring room. The team tutoring room is a facility designed to encourage student athletes to study among their peers. The room serves as a study hall where student athletes can work independently or together on school assignments. Additionally, the room also provides some instructional support in math and English. The facility operated in spring 2016, fall 2016, and spring 2017.

The report focuses on two outcomes, completion and success. 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. Success rate was defined as the percentage of students earning a grade of A, B, C, or P (passing).

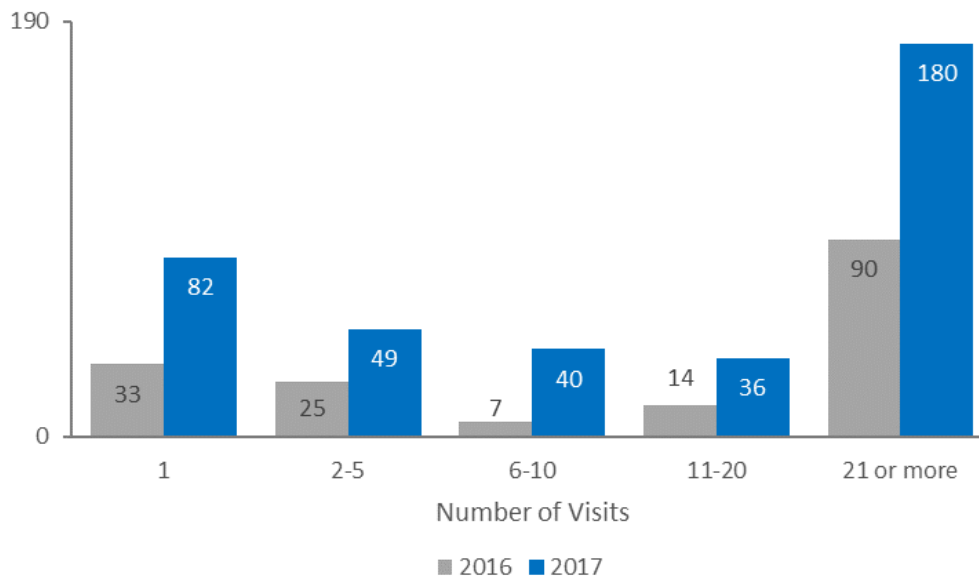
The following sections compare student athletes' rates of completion and success with the rates of a group of other Cerritos College students. These students satisfied two criteria: (1) they were enrolled in the same sections as the team room users and (2) they did not visit the Student Success Center during the term in which they shared a section with the team room users.

Table 1 shows summary statistics for team room tutoring data. The final column shows that the average number of visits and time spent in the facility grew between 2016 and 2017. Similarly, Figure 1 shows that, in academic year 2017, the majority of student athletes' who chose to visit the Team Room, visited more than 20 times.

Table 1. Summary statistics for Team Tutoring Room visits.

Academic Year 2016				
	Minimum	Maximum	Sum	Mean
Visits	1.00	75.00	4139.00	24.49
Minutes	0.60	5609.58	309654.48	1832.28
Hours	0.01	93.49	5160.91	30.54
Academic Year 2017				
	Minimum	Maximum	Sum	Mean
Visits	1.00	130.00	10644.00	27.50
Minutes	0.00	87205.18	1145541.50	2960.06
Hours	0.00	1453.42	19092.36	49.33

Figure 1. Counts of Team Tutoring Room Visits.



Academic Achievement for Team Room Users and Non-Users

Table 2 shows indicators of academic achievement for ESLSC users and non-users. On average, Team Room users had higher GPAs and enrolled in more units during spring 2016, fall 2016, and spring 2017. Team Room users had fewer cumulative units than non-users during 2017.

Table 2. Comparison of ESLSC Users and Non-Users Enrolled in an ESL Course on Academic Achievement Indicators.

Academic Achievement	Academic Year							
	2016				2017			
	Team Room Users		Non-Users		Team Room Users		Non-Users	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Cumulative GPA	2.84	0.52	2.56	0.81	2.85	0.67	2.54	0.88
Units Taken	13.55	4.48	7.50	4.57	13.84	4.45	8.13	4.53

Cumulative Units	38.98	19.64	38.68	27.99	33.99	22.04	38.02	29.68
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Demographic Data for Team Room Users and Non-Users

Tables 3 through 5 show demographic data for Team Room Users and non-users. The Team Room user group was predominantly male, whereas the non-user group was predominantly female gender (Table 3). Native American students made up almost one-third of the team room user group but only about 5% of the non-user group (Table 4). Table 5 shows that Team Room users were younger than the non-user group.

Table 3. Comparison of Team Room Users and Non-Users Enrolled in English or Math Courses by Gender

Gender	Academic Year							
	2016				2017			
	Team Room Users		Non-Users		Team Room Users		Non-Users	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Female	59	43%	1519	51%	115	42%	2811	51%
Male	75	55%	1403	47%	148	54%	2597	47%
Unknown	*	1%	50	2%	11	4%	151	3%
Total	136	100%	2972	100%	274	100%	5559	100%

Table 4. Comparison of Team Room Users and Non-Users Enrolled by Ethnicity

Ethnicity	Academic Year							
	2016				2017			
	Team Room Users		Non-Users		Team Room Users		Non-Users	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Asian	11	8%	403	14%	27	10%	730	13%
Black/African American	*	4%	82	3%	*	2%	101	2%
Filipino	*	1%	47	2%	*	1%	53	1%
Hispanic/Latino	67	49%	2010	68%	131	48%	3866	70%
Native American	40	29%	135	5%	79	29%	320	6%
Pacific Islander	*	1%	15	1%	*	1%	33	1%
White	*	2%	109	4%	*	2%	110	2%
Unknown	*	4%	171	6%	19	7%	281	5%
Total	136	100%	2972	100%	274	100%	5559	100%

Table 5. Comparison of Team Room Users and Non-Users Enrolled by Age Group

Age Group	Academic Year							
	2016				2017			
	Team Room Users		Non-Users		Team Room Users		Non-Users	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
19 and Under	95	70%	1103	37%	205	75%	2309	42%
20 - 24	33	24%	1287	43%	55	20%	2152	39%
25 - 34	*	1%	461	16%	*	2%	855	15%
35 and Over	*	4%	121	4%	*	2%	206	4%
Total	136	100%	2972	100%	272	100%	5522	100%

Math Achievement

Completion. Table 6 shows the math completion rates for students who visited team room tutoring and for students who did not visit tutoring. The majority of students in both groups completed their math courses. The Team Room Tutoring group had higher math completion rates in both 2016 and 2017. A chi-square test indicated that the difference in completion rates was statistically significant, $\chi^2(1) = 6.49, p = .01$.

Table 6. Math Completion Rates for Team Room Tutoring and No Tutoring Groups

Group	2016		2017	
	Enrollments	Rate	Enrollments	Rate
Team Room Tutoring	108	74%	201	70%
No Tutoring	1754	66%	3233	64%

Success. Table 7 displays the math success rates for students who visited team room tutoring and for students who did not visit tutoring. In 2016, the Team Room tutoring group had a lower success rate than the no-tutoring group. However, in 2017, the Team Room group had a slightly higher success rate than the no-tutoring group. A chi-square test indicated that there was no statistically significant difference in math success between the two groups, $\chi^2(1) = .002, p = n.s.$

Table 7. Math Success Rates for Team Room Tutoring and No Tutoring Groups

Group	2016		2017	
	Enrollments	Rate	Enrollments	Rate
Team Room Tutoring	108	36%	201	43%
No Tutoring	1754	42%	3233	40%

English Achievement

Completion. Table 8 displays the English success rates for student athletes who visited team room tutoring and for students who did not visit tutoring. The Team Room Tutoring group had higher levels of English course completion in both academic years. A chi-square test indicated that the difference in English completion rates was statistically significant, $\chi^2(1) = 9.52, p < .01$.

Table 8. English Completion Rates for Team Room Tutoring and No Tutoring Groups

Group	2016		2017	
	Enrollments	Rate	Enrollments	Rate
Team Room Tutoring	98	84%	215	82%
No Tutoring	1562	75%	3035	75%

Success. Table 9 shows the English success rates for student athletes who visited team room tutoring and for students who did not visit tutoring. The Team Room Tutoring group had higher levels of English course success in both academic years. A chi-square test indicated that the difference in English success rates was statistically significant, $\chi^2(1) = 9.97, p < .01$.

Table 9. English Success Rates for Team Room Tutoring and No Tutoring Groups

Group	2016		2017	
	Enrollments	Rate	Enrollments	Rate
Team Room Tutoring	98	75%	215	67%

No Tutoring	1562	61%	3035	61%
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Frequency of Success Center Visits and Course Outcomes

Team Room users were categorized according to their total number of visits during the 2016 and 2017 academic years. The categories were minimal user (1 visit), casual user (2-5 visits), moderate user (6-10 visits), frequent user (11-20 visits) and extreme user (21 and more visits). The final two columns of Table 10 show the success and completion rates for each user type. In academic year 2017, the extreme users had the highest levels of completion and success.

Table 10. Success Center User Profile Data.

Academic Year	User Type			Visits			Outcome Rates	
	Number	Percent of Total	Range	Average Number	Average Time	Completion	Success	
2016	Minimal	46	22%	1	1.00	1.08	80%	52%
	Casual	24	12%	2-5	2.58	2.97	79%	58%
	Moderate	10	5%	6-10	7.30	6.94	40%	20%
	Frequent	13	6%	11-20	15.62	19.63	69%	62%
	Extreme	113	55%	21 or more	41.99	53.09	82%	58%
	Total	206	100%		24.90	31.28	79%	55%
2017	Minimal	59	14%	1	1.00	23.84	71%	53%
	Casual	62	15%	2-5	3.42	4.23	69%	48%
	Moderate	40	10%	6-10	7.65	25.56	60%	38%
	Frequent	33	8%	11-20	16.64	19.20	64%	48%
	Extreme	222	53%	21 or more	53.00	81.26	84%	63%
	Total	416	100%		30.99	51.35	76%	56%

Student Athlete Center User Outcomes by Demographic Categories

The following sections explore differences in outcome rates by demographic categories. Specifically, these sections examine differences in math and English completion and success rates by gender, ethnicity, and age group.

Math Completion and Success

Math Completion and Success by Gender. In 2016, female students had a higher completion and success rates than male students. In 2017, male students had higher rates of completion and success (Table 11). We combined both years of data to assess gender differences in completion and success. Chi-squared tests showed that there was no statistically significant gender difference in completion ($\chi^2 [2] = 5.19, p = n.s.$) or success ($\chi^2 [2] = 2.70, p = n.s.$).

Table 11. Student Athlete Center Users' Math Completion and Success by Gender and Year.

Gender	Academic Year					
	2016			2017		
	N	Completion	Success	N	Completion	Success
Female	48	83%	38%	90	64%	38%

Male	58	66%	33%	103	77%	50%
Unknown	*	*	*	*	*	*
Total	108	74%	36%	201	70%	43%

Math Completion and Success by Ethnicity. Table 12 shows math completion and success rates by ethnicity. Asian and Hispanic students had relatively high levels of completion and success during both academic years. Chi-square tests indicated no statistically significant difference in completion rates ($\chi^2 [8] = 11.62, p = n.s.$). However, the test did show a statistically significant ethnic difference in math success ($\chi^2 [8] = 27.21, p < .001$). To further explore the implications of this result we conducted another chi-square, this time comparing the combined rate for Asian and Hispanic students with the combined rate for all other ethnic groups. This test showed that Asian and Hispanic students had significantly higher rates of math success than students of other ethnic groups, $\chi^2 (1) = 7.46, p = .01$.

Table 12. Student Athlete Center Users' Math Completion and Success by Ethnicity and Year.

Ethnicity	Academic Year					
	2016			2017		
	N	Completion	Success	N	Completion	Success
Asian	*	67%	44%	20	85%	60%
Black/African American	*	67%	0%	*	67%	67%
Filipino	*	100%	100%	*	100%	100%
Hispanic/Latino	54	76%	50%	102	71%	43%
Native American	29	72%	14%	49	59%	27%
Pacific Islander	*	0%	0%	*	100%	50%
White	*	100%	33%	*	60%	40%
Unknown	*	75%	25%	16	88%	69%
Total	108	74%	36%	201	70%	43%

Math Completion and Success by Age Group. As mentioned above, most student athletes were in the first two age categories. Students in the 19 and under category had higher completion and success rates than their peers in the 20-24 category (Table 13). A chi-square test showed a statistically significant difference in completion rates by age group, $\chi^2 (3) = 11.43, p = .02$. However, there was no significant difference in success rates, $\chi^2 (4) = 5.89, p = n.s.$

Table 13. Student Athlete Center Users' Math Completion and Success by Age Group and Year.

Age Group	Academic Year					
	2016			2017		
	N	Completion	Success	N	Completion	Success
19 and Under	73	77%	37%	151	72%	44%
20 - 24	28	61%	32%	37	62%	35%
25 - 34	*	100%	0%	*	83%	67%
35 and Over	*	100%	50%	*	80%	80%
Total	108	74%	36%	201	70%	43%

English Completion and Success

English Completion and Success by Gender. Table 14 shows completion and success rates in English courses by gender. The results show that female students had higher rates of completion and success than their male peers in both 2016 and 2017. However, chi-square tests showed that there was these differences in completion ($\chi^2 [2] = 4.42, p = \text{n.s.}$) and success ($\chi^2 [2] = 1.96, p = \text{n.s.}$) were not statistically significant.

Table 14. Student Athlete Center Users' English Completion and Success by Gender and Year.

Gender	Academic Year					
	2016			2017		
	N	Completion	Success	N	Completion	Success
Female	43	88%	77%	91	87%	73%
Male	54	80%	76%	115	79%	63%
Unknown	*	*	*	*	*	*
Total	98	84%	76%	215	82%	67%

English Completion and Success by Ethnicity. Table 15 shows completion and success rates in English courses by ethnicity. A chi-square test showed a statistically significant ethnic difference in English completion, $\chi^2 [8] = 19.41, p = .01$. Because of the large number of groups and the small number of students within each group, we tested the difference between the largest group, Hispanic students, and the other ethnic groups. This chi-square showed no statistically significant difference between Hispanic students' completion rate and that of other groups, $\chi^2 (1) = 1.92, p = \text{n.s.}$ Similarly, the chi-square test for success did not indicate a statistically significant difference, $\chi^2 (8) = 15.19, p = \text{n.s.}$

Table 15. Student Athlete Center Users' English Completion and Success by Ethnicity and Year.

Ethnicity	Academic Year					
	2016			2017		
	N	Completion	Success	N	Completion	Success
Asian	*	100%	86%	23	78%	74%
Black/African American	*	80%	60%	*	100%	67%
Filipino	—	—	—	*	100%	100%
Hispanic/Latino	46	83%	76%	100	87%	73%
Native American	33	82%	73%	66	76%	56%
Pacific Islander	*	100%	100%	*	100%	100%
White	*	100%	100%	*	0%	0%
Unknown	*	67%	67%	11	100%	91%
Total	98	84%	76%	215	82%	67%

English Completion and Success by Age Group. Table 16 shows completion and success rates in English courses by age group. The 19 and under age group was the largest group and had relatively high levels of completion and success. Chi-squared tests indicated that the age group differences in completion ($\chi^2 [3] = 6.90, p = \text{n.s.}$) were not statistically significant. On the other hand, there was a statistically significant difference in success ($\chi^2 [3] = 11.07, p = .01$). The 19 and under age group had the highest rate of English success.

Table 16. Student Athlete Center Users' English Completion and Success by Age Group and Year.

Gender	Academic Year					
	2016			2017		
	N	Completion	Success	N	Completion	Success
19 and Under	78	88%	79%	179	83%	72%
20 - 24	18	61%	56%	33	76%	48%
25 - 34	*	100%	100%	*	100%	0%
35 and Over	*	100%	100%	*	50%	50%
Total	98	84%	76%	215	82%	67%