



Research Brief

San Manuel ISEEK Student Workers Engagement and Course Success

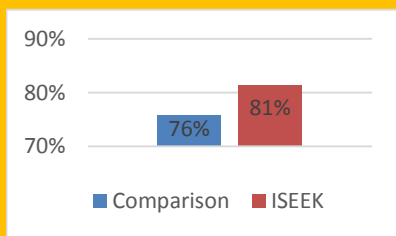
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Purpose of Brief

The purpose of this brief is to examine the relationship between 2014-2015 Crafton Hills College students who participated in the San Manuel ISEEK student worker program with student engagement and course success.

Summary of Findings

- San Manuel ISEEK students are statistically significantly and substantially more likely to successfully complete their courses (81%) than students in the same section (76%)



- ISEEK students were more likely to be engaged in the following areas at the end of the semester:
 - Class participation
 - Working with classmates outside of class
 - Developing meaningful relationships with CHC students
 - Being friendly and supportive of other CHC students

Overview

In 2014 – 2015 sixty-two Crafton Hills College Students participated in the San Manuel Increasing Student Engagement, Employment, and Knowledge (ISEEK) Student Worker Program. This brief examines how well on-campus Crafton Hills College student employment increased student engagement and student success rates for the students employed under the project.

Methodology

In 2014-2015 sixty-two students participated in the San Manuel ISEEK Student Worker program. Students participating in the San Manuel ISEEK Student Worker program were compared on course success to students who earned a grade on record (GOR) in the same section. Course success refers to earning a grade of A, B, C, or P and a GOR is a grade of A, B, C, D, F, I, P, NP, or W.

In addition to course success, students were also administered a student engagement survey that was developed by Crafton’s Educational Master Planning Committee (EMPC). Forty-two ISEEK students completed the student engagement survey prior to participating in the ISEEK program and 59 completed the student engagement survey after participating in the ISEEK program. The pre-post student engagement survey compared students on 11 Likert scaled questions where strongly disagree = 1, disagree = 2, agree = 3, and strongly agree = 4. Students were also asked how often they planned to study, have conversations with their professors and the number of campus events they planned to attend. On the post-engagement survey students were asked how many hours they actually studied a week, how many actual conversations they had with their professors, and the number of campus events they attended. They were also asked two open ended questions that asked what the student could have done differently to improve their academic performance and what the ISEEK program could do to help the student have a more successful college experience.

The effect size statistic was used to indicate the size of the difference on student success between ISEEK Student Workers and students who earned a grade on record in the section. 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. Research in the social sciences has indicated that a substantial effect is considered meaningful if the effect size is .10 or higher. 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).

Limitations

One limitation to the study was the pre-engagement survey. Students in the pre-engagement survey were asked to answer questions based on their plans for the year. This was a limitation because students often have high expectations and hopes for the year that they may not be able to attain.

Findings

Table 1 illustrates the course success rate for ISEEK students and students who earned a GOR in the same section, referred to as the comparison group. ISEEK students were statistically significantly and substantially more likely to complete their courses with a “C” grade or better (81%) than students enrolled in the same section (76%). ISEEK males were also statistically significantly and substantially more likely to successfully complete their course (83%) than males in the comparison group (75%). In addition, ISEEK students who were 19 years old or younger, 25 – 34 years old, Asian, Caucasian, and Hispanic were also statistically significantly and substantially more likely to successfully complete their course than students in the comparison group.

Table 1: 2014-2015 Success Rate Comparison between San Manuel ISEEK Student Workers and Students Enrolled in the Same Section by Gender, Age, and Ethnicity.

Demographics	Comparison Group			San Manuel Student Workers			Substantially Different*	Statistical Significant**
	#	N	%	#	N	%		
Gender								
Female	4,269	5,567	76.7	263	326	80.7	No	No
Male	3,504	4,682	74.8	138	167	82.6	Yes	Yes
Unknown	7	10	70.0					
Total	7,780	10,259	75.8	401	493	81.3	Yes	Yes
Age								
19 or Younger	2,737	3,580	76.5	133	149	89.3	Yes	Yes
20-24 Years Old	3,397	4,560	74.5	154	208	74.0	No	No
25-29 Years Old	799	1,052	76.0	82	97	84.5	Yes	Yes
30-34 Years Old	350	445	78.7	26	28	92.9	Yes	Yes
35-39 Years Old	191	247	77.3					
40-49 Years Old	192	233	82.4	6	11	54.5	Yes	No
50 or Older	114	142	80.3					
Total	7,780	10,259	75.8	401	493	81.3	Yes	Yes
Ethnicity								
African American	281	410	68.5	30	43	69.8	No	No
Asian	407	506	80.4	34	35	97.1	Yes	Yes
Caucasian	3,164	4,031	78.5	145	168	86.3	Yes	Yes
Hispanic	3,346	4,565	73.3	161	201	80.1	Yes	Yes
Multiple Races	540	694	77.8	27	40	67.5	Yes	No
Native American	28	32	87.5	4	6	66.7	Yes	No
Unknown	14	21	66.7					
Total	7,780	10,259	75.8	401	493	81.3	Yes	Yes

*“Yes” refers to a meaningful or substantial effect size difference if the effect size is .10 or higher. “No” refers to an effect size difference that is below .10.

**“Yes” refers to a p-value that is less than .05 and indicates that the difference in course success is a result of chance only 5 out of 100 times. “No” refers to p-value that is .05 or higher.

Table 2 on the following page illustrates the change in ISEEK student responses on the student engagement survey prior to participating in the ISEEK program and after the program. There were increases in four areas, two of which were substantial (i.e. ES \geq .10): 5) class participation, 6) working with classmates outside of class, 8) developing meaningful relationship with other Crafton students, and 9) being supportive and friendly with other Crafton students. ISEEK students were substantially more likely to develop meaningful relationship with other CHC students and were more likely to be friendly and supportive with other CHC students. Conversely, there were four other student engagement areas that statistically significantly and substantially declined after participating in ISEEK which may be a result of students having high expectations at the start of the year. ISEEK Students were statistically significantly and substantially less likely to 2) attend every class session, 7) consistently participate in a CHC club, 10) work hard to meet their instructor's expectations, and 11) pushing themselves harder.

Table 2: Pre-post Student Engagement Averages, Statistical Significance, and Effect Sizes.

Pair	Question	Mean	N	SD	Substantially Different*	Statistically Significant**
1	q7a: I plan to complete all required course assignments.	3.91	33	.522	Yes	No
	q7a_post: I completed all required course assignments.	3.73	33	.452		
2	q7b: I plan to attend every class session.	3.82	34	.576	Yes	Yes
	q7b_post: I attended every class session.	3.47	34	.788		
3	q7c: I plan to come to every class prepared (readings and assignments completed).	3.76	34	.606	Yes	No
	q7c_post: I came to every class prepared (readings and assignments completed).	3.65	34	.485		
4	q7d: I plan to keep my course materials, assignments and notes highly organized.	3.56	34	.660	No	No
	q7d_post: I kept my course materials, assignments and notes highly organized.	3.50	34	.615		
5	q7e: I plan to consistently ask questions or participate in class.	3.44	34	.786	No	No
	q7e_post: I consistently asked questions or participated in class.	3.47	34	.706		
6	q7f: I plan to consistently work with classmates outside of class.	3.18	34	.797	No	No
	q7f_post: I consistently worked with classmates outside of class.	3.21	34	.770		
7	q7g: I plan to consistently participate in a CHC related club or organization.	2.85	34	1.048	Yes	Yes
	q7g_post: I consistently participated in a CHC related club or organization.	2.47	34	1.107		
8	q7h: I plan to develop meaningful relationships with other CHC students.	3.56	34	.561	Yes	No
	q7h_post: I developed meaningful relationships with other CHC students.	3.68	34	.475		
9	q7i: I plan to be friendly and supportive of other students.	3.76	34	.606	Yes	No
	q7i_post: I was friendly and supportive of other students.	3.88	34	.327		
10	q7j: I plan to work hard to meet my instructor's expectations.	3.76	34	.606	Yes	Yes
	q7j_post: I worked harder than I thought to meet an instructor's expectations.	3.38	34	.652		
11	q7k: I plan to push myself as hard as I need to be successful in my courses.	3.82	34	.576	Yes	Yes
	q7k_post: I could have pushed myself harder.	2.94	34	1.043		

*"Yes" refers to a meaningful or substantial effect size difference if the effect size is .10 or higher. "No" refers to an effect size difference that is below .10.

**"Yes" refers to a p-value that is less than .05 and indicates that the difference in course success is a result of chance only 5 out of 100 times. "No" refers to p-value that is .05 or higher.

Referring to Table 3, students studied less, had less conversations with professors outside of class, and attended less campus events than they had planned. However, students were more likely to study 3-5 hours and 11-15 hours a week than what they had planned. They were also more likely to have 1-2 and 16 or more conversations with their professors outside of class than they had planned; and attend 1-4 campus events than they had planned.

Table 3: Pre-Post responses to hours studied, conversations with professors outside of class, and attendance to campus events.

Question	Pre-Assessment: On average, I plan to study __ hours per week outside of class		Post-Assessment: On average, I studied __ hours per week outside of class.	
	#	%	#	%
Study Hours				
0-2 hours	0	0.0	3	5.1
3-5 hours	6	14.3	11	18.6
6-10 hours	16	38.1	19	32.2
11-15 hours	8	19.0	12	20.3
16-20 hours	7	16.7	9	15.3
More than 20 hours	5	11.9	5	8.5
Total	42	100.0	59	100.0
	Pre-Assessment: Approximately, I plan to have __ conversations with professors outside of class.		Post-Assessment: Approximately, I had __ conversations with professors outside of class.	
# of Conversations	#	%	#	%
0	3	7.1	6	10.2
1-2	4	9.5	8	13.6
3-4	13	31.0	15	25.4
5-10	15	35.7	20	33.9
11-15	4	9.5	3	5.1
16 or more	3	7.1	7	11.9
Total	42	100.0	59	100.0
	Pre-Assessment: Approximately, I plan to attend __ campus events or activities.		Post-Assessment: Approximately, I attended __ campus events or activities.	
# of Campus Events	#	%	#	%
0	6	14.3	10	17.5
1-2	14	33.3	20	35.1
3-4	12	28.6	19	33.3
5-6	3	7.1	3	5.3
6 or more	7	16.7	5	8.8
Total	42	100.0	57	100.0

Table 4 shows the open-ended responses ISEEK students provided to the following question on the post-engagement survey: If you had the semester to do over again, what would you do differently to improve your academic performance? ISEEK students were most likely to identify time management and their approach to studying as strategies for improving their academic performance. As an illustration, one student stated that they "...would force ... [themselves] to study more often in more controlled environments to complete homework on time." Another student stated that they "...would sit in the front of class all the time."

Table 4: Open-Ended Responses to the following Question on the Post-Engagement Survey: If you had the semester to do over again, what would you do differently to improve your academic performance?

Time Management and Organization
Better time management.
Do my homework on time as opposed to turning in it for 83% credit and spend time with a study group.
Due to unusual circumstances, I had to drop all of my classes at some point during the semester. However, before dropping them, I attended every session and completed all my work for each class session. I would have dropped one of my three jobs this semester so that continuing my courses would not have been a problem, but I over-extended myself and needed a break. Badly.
Have more time to study.
I earned a 4.0 GPA this semester, but I could have been more organized. Better organization and time management would have made the semester less stressful.
I would be more organized and be more confident at the beginning of the semester.
I would force myself to study more often in more controlled environments to complete homework on time. But most importantly I would attend every day of class. Once the first day is missed, it tends to snowball my academics downhill due to my inherent social anxiety and depression.
I would have changed my schedule to allow myself more time to do homework.
I would have completely eliminated my social life, and stopped letting the needs of my family trump my academic needs.
I would have gotten more sleep.
I would have taken one less science course. I took 16 units this semester. The courses I took were chemistry, anatomy & physiology, algebra, and American Sign Language 103. Taking two science courses at the same time was difficult because the other courses were just as demanding as the science courses. In addition, I would limit my extra-curricular activities so I had more time to devote to homework.
I would have watched less Netflix and studied more at home.
I would manage my free time a little better. However, I have straight A's this semester, so I do not think I would change much.
I would not try to take two major science classes in the same semester. That time could have been used for another more compatible courses.
I would set aside more time to attend more school related activities.
I wouldn't have changed one thing except that I should have found a better way to keep me focused on my writing assignments in English. I could have done this by removing all the distractions. However, it was difficult to focus due to a family emergency.
If it was mandatory to acknowledge at least one thing that I would have to improve, the only thing that I would consider changing would be not having a lecture that runs until 10:00 pm followed up by a 7:30 am class the next morning. Other than that, I have had a rather pleasant semester and really would not necessarily change anything.
Make more study time.
Proper planning of my own assignments and duties.

(Table 4 continues!)

(Table 4 continues!)

Time management!!
To reschedule my current class schedule so I can have more time to study.
Try to balance out my studying time. Also, not take quizzes so lightly.
Study and be more productive with free time.
Approach to Studying
I would have studied ahead more in calculus, since my class fell behind the curriculum a bit.
I would have studied for anatomy more in the beginning of the semester. I didn't know that it was more work than anatomy 150.
I would probably ask more questions, tried to understand more than just brushing it off. Maybe study harder than I should have, make better notes to help me understand problems.
I would read a little more the course material.
I would study the material before it was presented rather than after. I also would have started the semester strong, so as to relieve stress near the end.
Study a lot more.
Study more
Study more for chemistry
Fully understand what each teacher expects and work hard from the beginning.
I would have applied myself a bit more in order to overcome the obstacles i had to face this semester.
I would have bought my books before the class began.
I would have visited the tutoring center more.
I would sit in the front of class all the time.
Nothing
I accessed all the help that I could this semester. If I don't do well, it is on me and not on anyone, but my own.
I wouldn't really do anything different I. The courses I participated I this semester but I would have taken an extra course.
Not much I could have done, I work hard and studied just as much....maybe sleep an extra hour?
Nothing, I received straight A's this semester.
Nothing.
Study Group
After physics 200 final was over, I had a 94.60% in the class. At the beginning of the semester, I did not have a study group, so my first exam was an A-. After that first exam, I begin to form a study group. I never had or needed a study group during my previous years at Crafton; however, as I continue my education, classes are beginning to get harder such as chemistry and physics. I wish I had form a study group earlier, so I could have a higher A or at least a 97%+.
Create a study group and work with others in finding solutions to homework problems

(Table 4 continues!)

(Table 4 continues!)

Miscellaneous
Attend EVERY class section.
I think I would have taken Spanish pass/no pass and math for a letter grade.
I would definitely retake Fall 2009.
I would have taken an extra class for my major now that I know I am prepared for the work load of literature classes.
If I could do anything different I would connect more with my fellow peers.
Not let my father illness affect me so much.
Not stressed myself out so much about getting A's in every class and becoming upset if I did not.
Take a different math class and fix the mistakes in my first Spanish composition.

Table 5 shows the open-ended responses ISEEK students provided to the following question on the post-engagement survey: What can we (CHC) do to help you have a more successful college experience? ISEEK students were most likely to identify adding more classes, and making the Tutoring Center more available to students. As an illustration, one student stated that “The logistics of getting to class are in need of improvement.” Another student stated that “the tutoring center is extremely helpful.”

Table 5: Open-Ended Responses to the following Question on the Post-Engagement Survey: What can we (CHC) do to help you have a more successful college experience?

Classes
An issue that is fresh in my mind from having to sort it out only yesterday has to do with the sister-school situation with Valley. The issue I encountered was that I found myself in a situation in which the only place I could take my last required class to fulfill my transfer requirements was at valley. I waited until open registration which was the date I was able to register, but was not able to register that day because I did not have an application on file. I was just a little bit confused. I got the impression that I could register through Crafton web-advisor since that is where I discovered the class. I was a little worried when it came to open registration and I then had to apply as well as wait up to two days before registering in fear that the class would have filled up. I may have missed something somewhere, but If there is information for this situation, I missed it. Other than that, CHC has been very helpful as well as fulfilling for my education goal s.
Architecture Program and more instructors in the Economics and Speech subjects.
CHC can offer more information and support about choosing the right courses. The logistics of getting to class are in need of improvement. The lack of parking and loud construction made this semester more difficult.
Giving more class options and making sure science classes don't compete with each other. Also giving student workers staff parking so while working do not take other students parking that do not for Crafton.
Giving tutors staff parking to get to work in a timely manner. Giving more class options, also.
Have more English and math classes available.
Tutoring Center
Have more Spanish tutors available for students.
I believe that if teachers were to set up more outside sessions with the students. Maybe even require the students to attend tutoring sessions for points.
I can't think of anything. The tutoring center is extremely helpful. I'm involved in several study groups. The faculty and students are supportive for the most part. My college experience here at Crafton is one of the best that I have had.
I cannot think of many ways this college could improve. It would be nice if there were more STEM support and STEM classes available. But besides that, my college experience has been great here at CHC.
I noticed there are no physics SI on Saturdays. Physics is a hard subject for many students, including myself. At SBVC, they have physics SI on Saturdays from 9 A.M. to 2 P.M. My first time attending the SI on Saturday at SBVC, there were about 30+ students. That shows there are many students needed help on physics. Maybe if CHC has a physics SI on Saturdays, the chances of students passing the class will be much higher.
The tutoring center has been a great help and support, so expanding it would help many students!
You guys do great so far. Maybe more space for the tutoring center it gets packed soon, more announcement about the tutoring center I don't see enough posters about how cool the tutoring center is, and how helpful they are.

(Table 5 continues!)

(Table 5 continues!)

Nothing
I really feel that all my needs have been met.
I think CHC is doing an awesome job. The school's system is set up in a way that it is possible for anyone to earn a degree and be successful in life.
I've been given all the necessary tools to succeed from the college, so nothing really.
My college experience has been amazing and successful so far, and I do not see the need for any changes.
Nothing everything is great
Nothing really it's great already.
Nothing, everything is good.
Nothing.
They have already help me so much with advice on how to deal with my family issues and depression.
Clubs/Activities
Create a LGBT (Lesbian, Gay, Bi-sexual, and Transgender) Resource Center. As a Gay man of color, there is a lack of both educational and social support on campus. CHC must begin talks with the district in regards to forming and funding a Queer Studies/Gender Studies/Women Studies program for students like myself whose goals are to transfer to an University that fosters these programs (such as UCR, UCSD, etc.) . I truly enjoy being a CHC student and worker, however this is an area that needs major improvements, and must be addressed.
Be more informative about the activities and important information of programs.
I wish sports were offered in the college.
Maybe encouraging more students to take part in the community, but I feel that CHC has a friendly environment.
More budget for clubs, less money going toward random on campus events that few if any attend. I would rather be able to go on an amazing trip with a club to a place of my interest than hear some random band playing in the middle of my only hour a week to do my homework
Transfer
Better transition to four-year university. I have seen a lot of students have difficulty with their first quarter at the new university.
Keep students posted if a transfer track changes while they are at Crafton.
Miscellaneous
All the full time employees are very helpful and kind. The instructors are very well rounded and although some have flaws I believe they do wonderful at their jobs. I would recommend more of a variety of foods and beverages that stride away from processed foods. Preferably fresh and drinks with no sugar. That would be nice if possible.
Have more quiet areas for studying and/or be stricter on who uses the study rooms. Also, a place for naps on campus would be nice too.
Involve the students more in structuring their own education rather than letting high officials of other more involved students to make those decisions for them. Create an environment on the campus were students can let go of stress without feeling like they are at a school, a place where they can sit comfortably, chat, relax, and where they don't feel pressured to spend money or study to be there, a little escape. Make the Turing center more well-known and spread the word about how awesome of a place it really is, especially the people who work there.
It would be more convenient for me to come to Crafton in the early mornings to study and work on homework.
Lower the textbook prices. And grow money on trees. One can only dream...
Maybe survey students before implementing new rules such as college hour, in doing so have whatever it is being surveyed be well-known on campus rather than many of us finding out from a teacher randomly, it'd be nice to have at least a little more say in what happens on campus that immediately affects us as students.
The counseling office could offer appointments to all students rather than only offering them to students who are DSPS or setting up an S.E.P. Student who are working and going to school cannot wait for a walk-in-list
The more organization the better.