



San Manuel 2015-2016 ISEEK Student Workers Engagement and Course Success

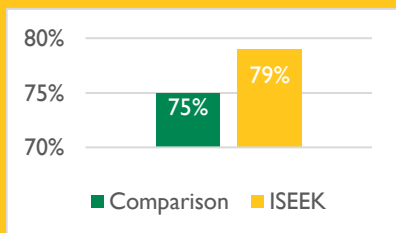
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Purpose of Brief

The purpose of this brief is to examine the relationship between 2015-2016 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 were more likely to successfully complete their courses (79%) than students in the same section (75%)



- ISEEK male, 30-34 year olds, and Hispanic Students were statistically significantly and substantially more likely to successfully complete their courses than students in the comparison group**
- ISEEK students were more likely to be engaged in the following areas at the end of the semester:
 - Study longer
 - Had more conversations with professors outside of class

Overview

In 2015 – 2016 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 course success rates for the students employed under the project.

Methodology

In 2015-2016 fifty-five 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). Thirty-five ISEEK students completed the student engagement survey prior to participating in the ISEEK program and 20 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

A limitation to the study was the timing of when ISEEK workers could start working. For instance, most of the San Manuel ISEEK Student Workers were not approved to work until well after the semester started. This may have added additional stress and challenges for ISEEK students that might negatively impact their performance in their courses.

Another limitation to the study was the pre-engagement survey. Students taking 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 more likely to complete their courses with a “C” grade or better (79%) than students enrolled in the same section (75%). The difference was very close to being statistically significant ($p = .054$) and also very close to being meaningful ($ES = .09$). ISEEK males were statistically significantly and substantially more likely to successfully complete their course (86%) than males in the comparison group (74%). In addition, ISEEK students who were 30 – 34 years old, Hispanic, and Multiple Races were also statistically significantly and substantially more likely to successfully complete their course than students in the comparison group.

Table 1: 2015-2016 Course 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 | 3,679 | 4,855 | 75.8 | 222 | 292 | 76.0 | No | No |
| Male | 2,947 | 3,983 | 74.0 | 101 | 117 | 86.3 | Yes | Yes |
| Unknown | 15 | 19 | 78.9 | | | | | |
| Total | 6,641 | 8,857 | 75.0 | 323 | 409 | 79.0 | No | No |
| Age | | | | | | | | |
| 19 or Younger | 2,308 | 3,158 | 73.1 | 44 | 70 | 62.9 | -Yes | No |
| 20-24 Years Old | 2,763 | 3,652 | 75.7 | 117 | 147 | 79.6 | No | No |
| 25-29 Years Old | 778 | 1,032 | 75.4 | 85 | 104 | 81.7 | Yes | No |
| 30-34 Years Old | 386 | 495 | 78.0 | 34 | 38 | 89.5 | Yes | Yes |
| 35-39 Years Old | 159 | 202 | 78.7 | 26 | 30 | 86.7 | Yes | No |
| 40-49 Years Old | 173 | 221 | 78.3 | 17 | 20 | 85.0 | Yes | No |
| 50 or Older | 74 | 97 | 76.3 | | | | | |
| Total | 6,641 | 8,857 | 75.0 | 323 | 409 | 79.0 | No | No |
| Ethnicity | | | | | | | | |
| African American | 233 | 365 | 63.8 | 8 | 15 | 53.3 | -Yes | No |
| Asian | 355 | 444 | 80.0 | 19 | 29 | 65.5 | -Yes | No |
| Caucasian | 2,559 | 3,244 | 78.9 | 82 | 96 | 85.4 | Yes | No |
| Hispanic | 3,042 | 4,206 | 72.3 | 194 | 247 | 78.5 | Yes | Yes |
| Multiple Races | 408 | 537 | 76.0 | 20 | 22 | 90.9 | Yes | Yes |
| Native American | 19 | 28 | 67.9 | | | | | |
| Unknown | 25 | 33 | 75.8 | | | | | |
| Total | 6,641 | 8,857 | 75.0 | 323 | 409 | 79.0 | No | No |

*“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. A “-Yes” indicates that the comparison group had a higher course success rate than the San Manuel Student Workers and that the difference was substantial.

**“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 no changes in student engagement in two areas, 5) consistently asking questions or participating in class, and 8) developing meaningful relationships with other Crafton students. Conversely, there were two 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 7) consistently participate in a CHC club, and 10) work hard to meet their instructor's expectations.

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. | 3.75 | 16 | .775 | -Yes | No |
| | q7a_post: I completed all required course assignments. | 3.50 | 16 | .632 | | |
| 2 | q7b: I plan to attend every class session. | 3.75 | 16 | .775 | -Yes | No |
| | q7b_post: I attended every class session. | 3.50 | 16 | .516 | | |
| 3 | q7c: I plan to come to every class prepared (readings and assignments completed). | 3.75 | 16 | .775 | -Yes | No |
| | q7c_post: I came to every class prepared (readings and assignments completed). | 3.63 | 16 | .500 | | |
| 4 | q7d: I plan to keep my course materials, assignments and notes highly organized. | 3.75 | 16 | .775 | -Yes | No |
| | q7d_post: I kept my course materials, assignments and notes highly organized. | 3.63 | 16 | .500 | | |
| 5 | q7e: I plan to consistently ask questions or participate in class. | 3.57 | 14 | .646 | No | No |
| | q7e_post: I consistently asked questions or participated in class. | 3.57 | 14 | .514 | | |
| 6 | q7f: I plan to consistently work with classmates outside of class. | 3.25 | 16 | .856 | -Yes | No |
| | q7f_post: I consistently worked with classmates outside of class. | 2.88 | 16 | .957 | | |
| 7 | q7g: I plan to consistently participate in a CHC related club or organization. | 2.94 | 16 | .772 | -Yes | Yes |
| | q7g_post: I consistently participated in a CHC related club or organization. | 2.50 | 16 | .966 | | |
| 8 | q7h: I plan to develop meaningful relationships with other CHC students. | 3.56 | 16 | .814 | No | No |
| | q7h_post: I developed meaningful relationships with other CHC students. | 3.56 | 16 | .629 | | |
| 9 | q7i: I plan to be friendly and supportive of other students. | 3.81 | 16 | .750 | -Yes | No |
| | q7i_post: I was friendly and supportive of other students. | 3.75 | 16 | .447 | | |
| 10 | q7j: I plan to work hard to meet my instructor's expectations. | 3.75 | 16 | .775 | -Yes | Yes |
| | q7j_post: I worked harder than I thought to meet an instructor's expectations. | 3.25 | 16 | .775 | | |
| 11 | q7k: I plan to push myself as hard as I need to be successful in my courses. | 3.75 | 16 | .775 | -Yes | No |
| | q7k_post: I could have pushed myself harder. | 3.25 | 16 | .856 | | |

*"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. A "-Yes" indicates that the comparison group had a higher mean average than the San Manuel Student Workers and that the difference was substantial.

**"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 were more likely to study longer and had more conversations with professors outside of class. However, students were less likely to attend campus events.

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 | 1 | 2.9 | 0 | 0.0 |
| 3-5 hours | 11 | 31.4 | 6 | 30.0 |
| 6-10 hours | 9 | 25.7 | 4 | 20.0 |
| 11-15 hours | 8 | 22.9 | 4 | 20.0 |
| 16-20 hours | 4 | 11.4 | 4 | 20.0 |
| More than 20 hours | 2 | 5.7 | 2 | 10.0 |
| Total | 35 | 100.0 | 20 | 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 | 8.6 | 0 | 0.0 |
| 1-2 | 8 | 22.9 | 4 | 20.0 |
| 3-4 | 10 | 28.6 | 5 | 25.0 |
| 5-10 | 9 | 25.7 | 6 | 30.0 |
| 11-15 | 3 | 8.6 | 0 | 0.0 |
| 16 or more | 2 | 5.7 | 5 | 25.0 |
| Total | 35 | 100.0 | 20 | 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 | 2 | 5.7 | 4 | 20.0 |
| 1-2 | 11 | 31.4 | 8 | 40.0 |
| 3-4 | 13 | 37.1 | 4 | 20.0 |
| 5-6 | 3 | 8.6 | 0 | 0.0 |
| 6 or more | 6 | 17.1 | 3 | 15.0 |
| Total | 35 | 100.0 | 19 | 95.0 |

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 “talk to other students more ... [and] ask more questions.” Another student stated that they “...could have studied a little more, and participated in more class questions.”

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 |
| Dedicate more time to passing. |
| If I had to retake this semester over the one thing I would change is change my class time. Having it late at night makes it more difficult to spend the amount of time I would truly want to spend on my academics. |
| Keep a planner to schedule everything. |
| Not procrastinate big assignments. |
| Taken a later class. I suffered from morning sickness due to my pregnancy and it was difficult to get to class so early in the morning. |
| Approach to Studying |
| I probably could have studied a little more, and participated in more class questions |
| I would have dedicated more time on campus studying and taking advantage of the quietness that exists in the library. |
| I would spend more time on comprehending course material on a deeper level (for myself) than what was required to pass tests in class (for school). |
| Talk to other students more. Ask more questions. |
| Tutoring |
| Get more help outside of class. (tutoring center) |
| I would have requested a tutor earlier in the semester. |
| I would seek tutoring for a few classes that I was struggling with. |
| Study Group |
| I would have participated in more study groups. Explaining the information to others could have helped me to remember the information faster. |
| Miscellaneous |
| If I had to do this semester over again I would of probably taken another class because I have received all A's this semester so far. |
| Not miss any classes |

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 state that they did not need anything to be more successful, and input into how instructors taught classes. As an illustration, one student stated that “I believe all the tutoring and computer centers have helped enough.”

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?

| |
|--|
| Nothing |
| I believe all the tutoring and computer centers have helped enough. |
| I successfully completed my courses at Crafton and attained my Associates of Arts' degrees. Thank you. |
| I think CHC has a lot of great services available to students. I have truly enjoyed my college experience at CHC. I only wish that we had more student parking, but I'm sure that will improve once the on-campus construction is completed. |
| You all are doing an awesome job! |
| |
| Classes |
| I think it would be beneficial to take the students opinions of professors into account. After all, they do know best about what teachers do well and which do not mesh that well with students or curriculums. |
| Maybe encourage group activities more in class when applicable. Not only this, but also informing students on how to most effectively work in groups to their specific skill set or personality type. It would encourage teamwork and social networking while also preparing students for a work environment. |
| Not cover too much material in one class sitting. |
| There isn't much that I could suggest. However, I would suggest having a class survey for every instructor because I think the department should look more into how the students feel about their instructor's performance. It could help the instructors improve their teaching techniques. By doing this, it could greatly improve the students learning techniques. |
| |
| Tutoring Center |
| Hire experienced tutors who can actually teach and not rude arrogant students who are make other students feel inferior. |
| |
| Parking |
| More parking or on campus tram, so students can get to next class quickly. |
| |
| Miscellaneous |
| Perhaps have counseling be more efficient i have heard many bad experiences with the counseling office. |