

Analysis of the Potential Structure of a Peer Mentorship Program for The Construction Management Department at Cal Poly, SLO

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The Construction Management Department at Cal Poly, SLO has no structured peer mentorship program as of 2022. The department has attempted to implement a peer mentoring program in the past but none with longevity. This paper analyzes data collected from the students of the CM Department through a qualitative and quantitative survey regarding the need and structure of a peer mentorship program to begin again. The survey's main goal was to gain an understanding of whether or not the students think the department should implement a peer mentorship program and the structure that the student body would find most beneficial if a program was to start. Based on the research survey that students responded to, a peer mentorship program would positively influence the Construction Management Department and most students would be willing to become a mentor. A peer mentorship program was seen as a positive addition to the department and most students said that they would use a mentor for career and internship advice, class registration and competition teams. This paper analyzes data that shows the students do not believe there should be prequalification requirements for students to apply and that most students would prefer to have 1-4 underclassmen assigned to them.

Key Words: Construction Management, Peer Mentoring, Survey, Peers, Mentor

Introduction

During the history of the Construction Management Department there have been a few attempts at implementing a peer mentorship program within the department. However, none of these attempts survived for more than a few years. The researcher of this paper will use the data collected from this survey to analyze potential strategies to and benefits of implementing a peer mentorship program into the Construction Management Program at California Polytechnic State University, San Luis Obispo. As a full time, construction management student for the past 4 years, the researcher looks back on the peers they had to help guide them through quarterly registration, club membership sign ups, classroom material and competition team applications. The upper classmen's support and knowledge through experience was invaluable. The upper classmen who had gone through all of the processes

before gave them great tips that increased their success and reduced the confusion and hesitation when navigating new aspects on the Construction Management Department at Cal Poly. The researcher was lucky to have been integrated with an older group of students; however, they feel it would have been beneficial to have a peer mentor assigned because not all CM students have that opportunity. Having a structured mentorship program could increase participation within the major.

Research Goals

This research based senior project collected data from Cal Poly Construction Management Majors on their need and preferred structure of a potential construction management peer mentorship program. Many incoming freshmen do not get involved in the major until later in their collegiate career and a mentorship program could help them become more integrated into the major and industry. Sometimes students are more willing to ask for help from someone who is not an authority figure (faculty advisors), meaning that the underclassmen would get their questions answered quicker. It would also relieve some strain on the faculty and the students would have more time to give their mentored attention. By surveying the Cal Poly construction management students, this research paper offers a 'sneak peek' into the specific needs of the students and the general structure that the students feel would be most beneficial. The overarching goal of this research project is to discover whether or not Cal Poly CM students want a mentorship program and who should be the mentors.

In order to answer the question of whether or not freshman and sophomore Cal Poly Construction Management Students would benefit from a peer mentor, a qualitative and quantitative survey was collected from a representative sample of the major's students. When utilizing the phrase "benefit from" in the survey, it means students would become more involved, have a higher GPA, grasp construction knowledge better and become more invested in their construction career. These benefits could come from having an assigned junior/senior who could act as a resource and mentor regarding all things CM, like classes, clubs, academics, registration, competition teams etc. I conducted qualitative and quantitative research of both the under classmen and upper classmen and how they felt about a peer mentorship program and collected data on what type of structure the student body feels would work best.

Literate Review

The implementation of peer mentorship programs is seen during all phases of life- from elementary school and into the workplace. The benefits of having an assigned or naturally occurring peer mentor are extensive, both emotionally and academically. When a student has a peer mentor, they have an enhanced sense of belongingness and improved satisfaction engagement and retention (Carragher, 2016). Through the implementation of a peer mentorship program feelings of isolation and uncertainty (Cantwell & Scevak, 2004) are reduced. There have been critical evaluations of peer mentorship programs within universities, however, there has been much more research done in different setting like the workplace and grade schools. The implementation of a peer support initiative was analyzed at The University Hospital of Leicester NHS Trust and De Montfort University School of Nursing and Midwifery and they found that a buddying system improve level of professional and personal support (Brooks & Moriarty, 2009).

Peer mentorship programs have "increased in popularity" because they are known to "help with transition points in participants' lives." (Garringer & MacRae, 2008, p. 27). Regardless of whether they are "informal, formal, or multiple mentor" (Byars-Winston) the benefits have been seen across disciplines and regions. The effectiveness of a peer mentorship program falls largely on the

relationship between the mentor and the mentored. The success of a mentorship program does not have to do with the actual form of a peer mentor program, but rather the duration of the interactions between the mentor and mentored (Allen, 2003). This means that the frequency of interactions between the mentor and mentored are important to program success.

In a systematic review of learning outcomes in higher education, researchers explored the impact of peer mentoring program on graduate level students. According to Lorenzetti (2019) they found that the majority of students who “participated in formal peer-mentoring programs benefit from these experiences” (p. 453). This means that even if a need for a peer mentorship program is not found, the benefits of it would still be there.

Overall, the research analysis lead to the conclusion that the form of a peer mentorship program does not matter for the actual success of the person getting mentored. However, more research needs to be done on how the form of the program would influence the longevity of the program. According to the research, from the perspective of the mentored, as long as they have a mentor, they will still see benefits- regardless of whether or not meetings are informal, formal, consistent, etc. What is most important to the success of a program that the mentor and mentored meet and that they have each other.

Research Design and Methodology

This section will give an overview of the means and methods of data collection for this senior project research paper. This research was conducted in order to gauge the current student’s interest in a potential peer mentorship program. This entails the need or desire for one and who would be best suited to become those peer mentors in the future. In order to measure this, a survey was sent out to collect data on what it would be used for and how it should be set up. The survey was sent electronically through Microsoft Forms on February 3, 2022. The survey was simple and short; it had an average completion time of approximately four minutes and 20 seconds. The survey questions were as follows:

1. What is your academic year?
2. Do you think a peer mentorship program would be effective in increasing student academic success in the CM Department
3. Would you utilize a peer mentor?
4. If a peer mentorship program was integrated into the CM Department, rank the following of what you would utilize it for. Most Useful-top Least useful- bottom
5. What form a mentorship program would you like to see?
6. Should anyone be able to be a mentor or should there be a GPA requirement?
7. What structure of a mentorship program would you like to see?
8. If your peer mentor was a part of a club/team, would you be more inclined to join?
9. If there is a peer mentorship program, should it be mandatory to meet with your mentor at least once?
10. Would you be willing to become a peer mentor?
11. If you were a peer mentor, how many students would you be willing to have assigned to you
12. What would incentive you to become a peer mentor?

Rationale of the Research Questionnaire

In order to gain the most comprehensive data on this topic, the year in school of each participant needed to be known. Then, the broadest question of whether or not they thought a peer mentorship program would increase student academic success. All students technically go to college to increase their knowledge so understanding whether or not students believe this program would increase their academic standing was important. Once I collected data on the respondents' established beliefs, I asked questions pertaining to the "who" of a mentorship program. For example, what year standing the mentors could be or their GPA. After this I asked questions regarding the respondent's willingness to be a peer mentor, how many students they would take and potential incentives.

The Research Sample/Method of Analysis

The collection of data was done through a survey sent to all construction management majors through email who were enrolled during winter of 2022. The collection of data needed to come from the actual student body so that the data would reflect the actual needs of the students in the department and gage participation and interest in becoming a peer mentor. The survey was 12 questions and received 60 responses from the students. Exactly 50% of the respondents (30 students) were seniors, 16 respondents were juniors, 11 respondents were sophomores, and 4 respondents were freshmen. The questionnaire was qualitative, and I will be analyzing the data through the descriptive method.

Results and Analysis

Out of the 60 respondents, only 1 individual responded "no" to the question "Do you think a peer mentorship program would be effective in increasing students' academic success in the CM Department?" This data suggests that over 98% of the students in the construction management department at Cal Poly believe that the integration of a peer mentorship program would raise student's educational outcomes overall. Even though there was an almost unanimous consensus that student success would rise academically, 10% of the respondents would not willingly utilize a peer mentor. This comes from data collected from question #3 "Would you utilize a peer mentor?" 7/62 students responded no; the students who responded no ranged in every grade/year: freshman, sophomores, juniors, and seniors. See below for a comparison between the responses

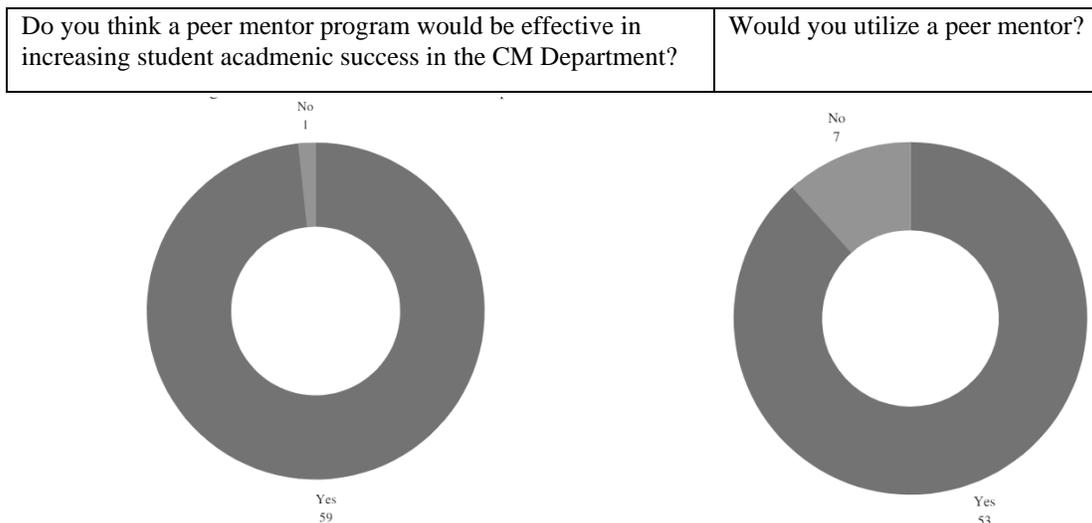


Figure 1. Comparison Between Thoughts On Increasing Student Success vs. Utilization

What Students Would Use A Peer Mentor For

When asked what students would most use a peer mentor for the following data was collected. Over ½ of the students would use their peer mentor for internship or company selection advice. 38 students of the 60 that were surveyed responded that they would use their peer mentor the most for either “advice of company internship/jobs” or “Advice of internship type (precon, in the office, field, VDC etc.)” The students, on average, ranked class registration as their 3rd choice for what they would use a peer mentor for followed by competition teams, club involvement, understanding class material and finally canvas navigation and personal situations. Figure 2 Shows the rankings of what students desired the utilizations of a peer mentor to be.

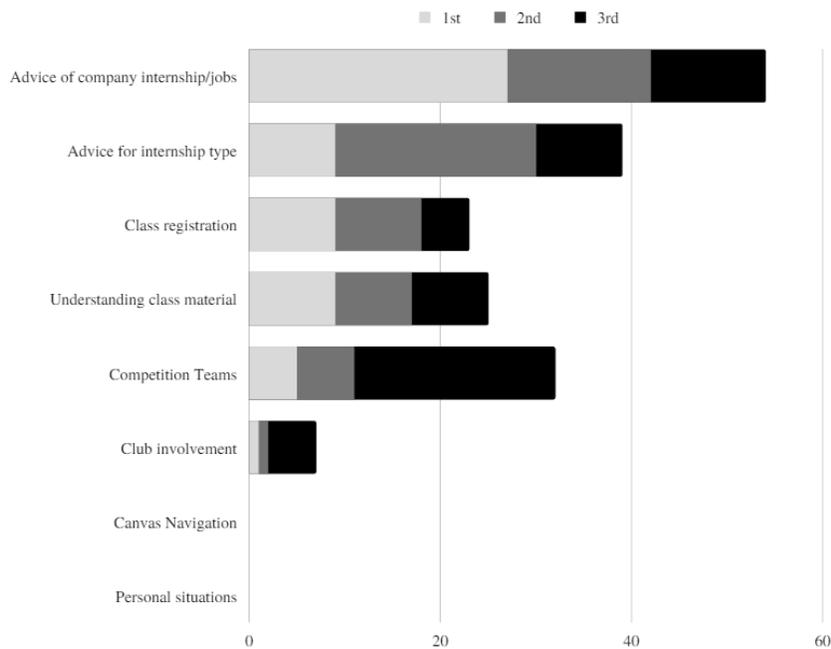


Figure 2. Student Rankings of Top 3 Peer Mentoring Topics

As shown in the above graph, students would not utilize their peer mentors for personal situation or canvas navigation. The majority of students chose that they would use these peer mentors for situations pertaining to their internships. For example, where they should work or what they should be doing during their internships.

Peer Mentor Selection

Questions 5 and 6 of the survey were questions regarding the background requirements for becoming a peer mentor. They pertain to student GPA and membership to Sigma Lambda Chi. SLX is Cal Poly Construction Management’s honors fraternity, in order to be a part of it you must maintain above a 3.7 GPA. The below figures summarize that student’s would prefer an open application process with no other general requirements applying.

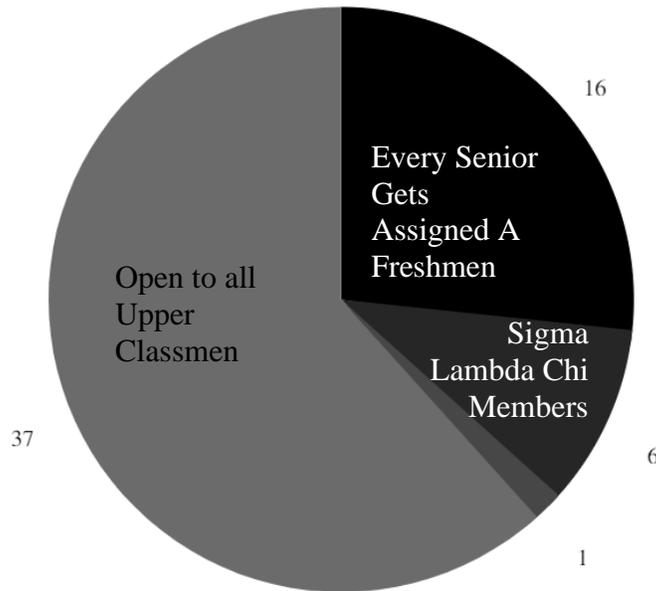


Figure 3. Who Student's Want The Peer Mentor's To Be

60% of respondents believe it should be an open application to all upper classmen. With the second most popular option being every senior get assigned a freshman. Besides the one individual who did not think there should be a mentorship program, secluding the mentorship program to just Sigma Lambda Chi members was the least popular option.

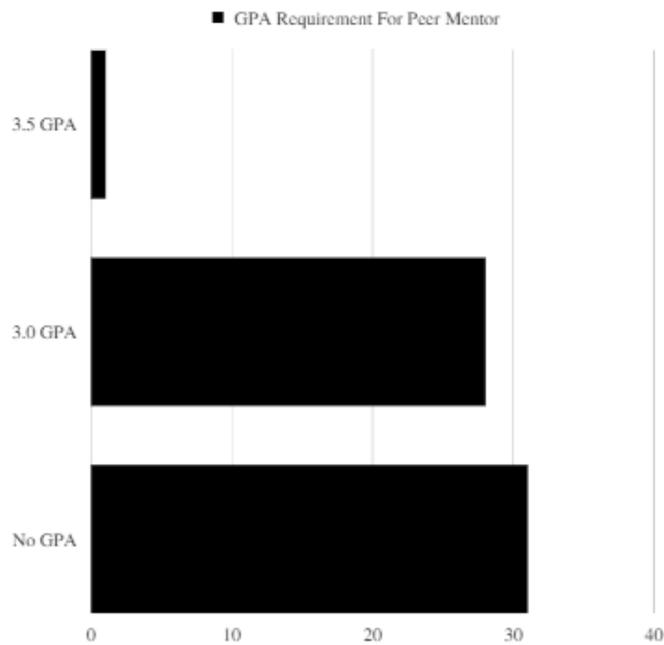


Figure 4. GPA Requirement

The student's generally felt that there should either be no GPA requirement for applications. Over half of the respondents, 31 students, chose no GPA requirement. Another 28 said that a GPA Requirement of 3.5 would be responsible while only 1 said that a GPA of over a 3.5 should be maintained for a peer mentor.

Potential Form of a Peer Mentorship Program

In order to distinguish student interest and willingness to become mentors, questions 7, 9, 10, 11 and 12 were asked. Of the 60 students surveyed, when asked whether or not they would be willing to become a peer mentor, only 2 answered with a definitive no.

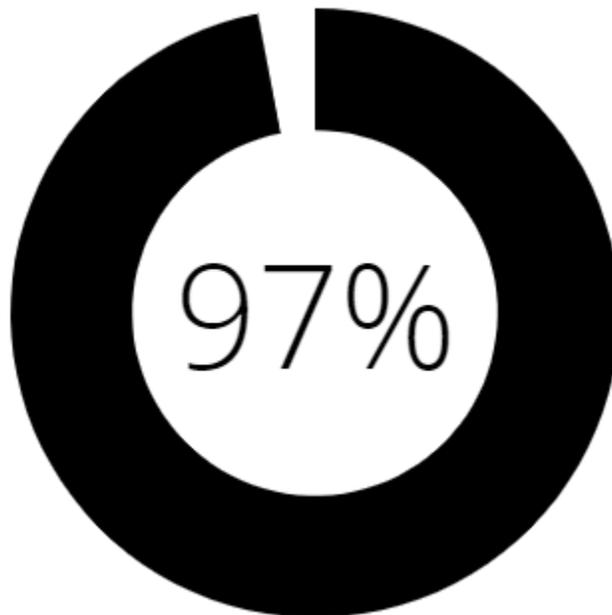


Figure 5. Student Willingness to Become a Peer Mentor

When asked how many students the respondents would be willing to take on as part of a potential program, 25 responded with 1-2, 29 responded with 2-3 and 6 responded with 3-5. Of the 58 that responded with "maybe" or "yes" 69% of them would like the meetings with the peer mentors to be 1 on 1 sessions on a need's basis. Another 20% would like 1 on 1 session to occur at the beginning of every quarter regardless of whether or not the mentored desires it. 12% of respondent would prefer to have a group peer mentor session at the beginning of every quarter. One person responded that there should not be any peer mentoring. Regardless of the potential form, 48 out of the 60 students who were surveyed said that meeting with you peer mentor should be required at least once a quarter.

The last question of the survey asked what incentive the student would want to become a peer mentor. The answers are categorized in Table 1 with the students who would like an incentive on the right and those who would not need one on the left.

NO INCENTIVE NEEDED RESPONSES	INCENTIVE NEEDED RESPONSES
I wouldn't need an incentive	Class units maybe
Intrinsic value	Priority Registration
Mentorship in both situations is an incentive enough on its own	Credits for technical electives
Nada	Class credit
Helping prevent confusion that I had my freshman year	Similarities to my mentee
I wish I had someone to give me advice when I came in blind as a freshman.	Early registration
To help younger students get to the know the ropes of the CM dept and see them grow	Pay
it would be beneficial so I would just want it	Cheaper Classes
I've been around the block a few times, if someone wants my advice on something then all they need to do is ask. No incentive needed.	Free Lunches?
Nothing, older guys that have helped me figure out my path have made me feel so good and doing that for someone else would be awesome.	Money
I feel as if I have received a lot of guidance as a student in the CM Department, so I think it would only be right to give it back to fellow CM students in the future.	A program that has support from the administration, and a flexible structure
The reason I have been successful in this major is due to the support of CM students in grades above me; therefore, I would want to pass my experience and knowledge to benefit those younger than me as I was.	Technical Elective Credit for "Business Development" or "Talent Operations" or "Workforce Management"
Given my experience in CM and the help I've received from those more experienced than me, I would do it with no incentive - just to be a help to those that need it.	Being able to showcase your peer mentorship involvement (on a resume, in an interview, etc.) would be an incentive in itself. I also think younger students that have mentors would be more likely to become one themselves as they progress in school.
Giving back to the department and next generation	Receiving 2 units towards tech electives
I'm down	Class credit/money
Just being able to give back to a program that's given me so much	Helping people but maybe credit or community service hours
Meeting freshman who are eager to get involved and learn. Maybe some CM swag or door dash gift card	Having kids interested in the same sector I am pursuing
Helping young people	Lunch/dinner / faculty support
Peer and program success	Early class registration
To help other students enjoy the major	Tech elective class credit
Helping out younger CM students and getting to know them better. I would also hr able to guide them towards great internship opportunities, course suggestions, and even an opportunity to join a Reno team since myself and others I know will be captains.	
I want to do it, so nothing.	
To give back and pass knowledge to the younger cm kids	
Being able to help younger students navigate college	
None necessary, I think it's cool to pass on information	
Experience	

Table 1. Categorized Responses to Incentives Students Would Want

The students who would not need an incentive outrank the students who would want an incentive. The students who would not need an incentive would want to help younger students either because they had someone who helped them, or they would not want a freshman to struggle alone like they did. The ones that do want an incentive would want class credit to be given (majority said for technical electives), free lunch, pay or to make sure that there was faculty support.

Discussion and Conclusions

This data is reflective of 11% of the students within the Cal Poly Construction Management Department. The sample size may limit or potentially influence the results. Additionally, many of the respondents were seniors. Meaning they are willing to read and participate in a survey's that get sent out in regard to a Senior Project- this could point towards those students being more involved in the department. Therefore, these students either had mentors who taught them the importance of being involved or are already mentoring younger students within their classroom or clubs.

While the sample size did have limitations, conclusions can be drawn from and discussed in regard to this study. The two main goals of this research project were 1. to analyze whether or not construction management students would want a peer mentorship program and 2. to analyze who students would want to be the peer mentors and their requirements.

The majority of students believe that a peer mentorship program would not only be beneficial to student success, but that they would actually use a peer mentor assigned to them as well. The peer mentor would be integrated into the student's collegiate career as a confidant and someone who could help with a number of issues either pertaining to construction or not. Another conclusion of this study is the general willingness of the upperclassmen to become peer mentors with little to no incentive. Additionally, the students do not want a specific type of person to be a peer mentor. In summary of all questions asked regarding who should be able to become a peer mentor, students chose 'anyone.' They feel that no GPA or club membership should be a required in order to mentor students; anyone should be able to mentor underclassmen. Based on student response, our student body would prefer fewer students assigned to them. This is probably to reduce strain on the upper classmen and make the underclassmen more of a priority to each peer mentor.

Future Research

There is much future research that can be and should be done before the implementation of a peer mentor program in the Construction Management Department. Answers regarding how it would be integrated into the department, who would be in charge of it and the application would take precedence because without faculty and department support the longevity of a program like this would not stand.

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