Creating a More Diverse and Inclusive Environment in the Cal Poly Construction Management Department

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This study looks at how to increase diversity and inclusivity in the Cal Poly Construction Management Department. It is becoming increasingly important to promote diversity and inclusivity not just in the classroom, but also in the workforce. It is important for the Cal Poly CM program to put more of an emphasis on trying to create a more diverse major and acknowledge the importance of having inclusivity and diversity in the major. This project researched ways in which other universities have used different methods to increase diversity and create a more inclusive culture on their campus. This research was done to find action items to be applied to California Polytechnic University Construction Management Department, since this major is lacking in diversity and an inclusive environment. This project also includes a survey that was conducted to evaluate what the current students of department think about the current climate and if they want to see a shift towards a more diverse and inclusive environment. The survey also evaluates what courses and topics they would like to see as modules in specific CM courses. The results of the survey show the majority of current students want a course offered in the curriculum on diversity, whether it is modules incorporated into a class or a separate elective that fulfills a requirement. The survey found that the most important topic to be discussed is Diversity in the Workforce.

**Key Words:** Diversity, Inclusive, Increase, Cal Poly, Construction Management

**Introduction**

In the Fall of 2020, the Cal Poly Construction Management Department had a total of 656 students. Of the 656 students in the department, over 50% were White compared to the next biggest portion of students which were Hispanic/Latinx and roughly make up 15% of the department. There were small slices in the chart that indicated Asian American, multiracial, and unknown/other (CAED). Lastly, there was a small line for Native American and African America, signifying maybe one to two students in the department of this race and ethnicity (CAED). It is important to note that of all the majors in the College of Architecture and Environmental Design, Construction Management had the largest percentage of white students. This signifies the lack diversity in the department. Creating a diverse student body on campus and in the classrooms helps foster an environment where different groups can learn together. Studies show that college students who interact with a more diverse student body are more open to challenging what they believe. Learning these new perspectives from others can lead to promoting learning and development. It has also been found that students placed in a diverse classroom have self-reported improvement in critical thinking skills (Sylvia). Undergraduate students who are exposed to learning about diversity in their curriculum and surrounded by a diverse group of people have had positive growth in skills that will help in a increasing diverse society and learning skills (Sylvia). Those entering into the construction industry develop strong critical thinking skills and a diverse amount of learning skills. The purpose of this project will research different ways
in which other Universities have taken steps to increase their diversity on campus, while also looking at which methods worked the well for universities, and which did not. The second aspect of this project will consist of a study conducted on the current Construction Management students on whether the department gives a strong effort in promoting diversity and inclusivity. This survey will explore current efforts and future ideas which can be applied to the department, whether in the classroom or through more extra curriculars. Finally, this project will conclude with beneficial suggestions that the Cal Poly Construction Management Department can implement in the future.

**Literature Review**

Dartmouth College has received criticism for excluding more diverse communities and has many issues that have to do with diversity and inclusivity (Morris). The school then created an initiative to increase their student body with more students of color, where nearly 52% of their students admitted in this upcoming admission cycle will be people of color (Morris). The disparity between the student body and minority professor is very apparent on the campus, the school pledges to increase more tenure-track minority faculty in campus by 25% by 2020 (Morris). Another initiative the school took was they sent out a survey to everyone to see how they felt about campus climate with diversity and inclusivity and trying to create initiatives to create a better environment (Morris). The survey indicated that 70% of students felt comfortable about the campus climate while 21% of individuals have experienced some kind of offensive or hostile conduct. The dean of the college indicates the difference with these initiatives is guaranteeing administration accountability with these new initiatives.

Many prestigious colleges are increasing the number of black students on their college campuses through participating in a program called The Posse Foundation (The JBHE Foundation, Inc, 36). This program has coordinators in five large cities who nominate students from disadvantaged backgrounds, who have immense potential and would not have the opportunity to go to college otherwise (The JBHE Foundation, Inc, 36). The Posse Foundation goes through a rigorous selection process, which ultimately 10 students receive full tuition scholarships to that university (The JBHE Foundation, Inv, 37). Once the colleges have picked their students, those students meet two hours a week for the next eight months to prepare for the drastic change college life will bring. This program has found that over 90% of Posse scholars have graduated from college, which doubles the rate of black students graduating (The JBHE Foundation, Inv, 37). By universities participating in this program, it has increased diversity on their campuses.

Debates at schools like UCLA have resurfaced on whether or not a diversity course should be part of the undergraduate general education requirements (Parker). Diversity courses have a positive impact on students learning such as: cognitive and academic development, psychological well-being, civic engagement, social justice and action (Parker). It is found that by providing students with diversity courses, students are able to exercise moral reasoning and moral development (Parker). Previous studies have also said that diversity courses have had positive effects on college students’ cognitive development, just how many courses are needed. Students with at least one diversity course have a greater gain in their general interest in ideas and thinking but taking more than one course is not associated with greater benefits (Bowman). Individuals who were from middle or lower socioeconomic status and White students experienced the greatest cognitive growth from taking a diversity course (Bowman).
Diversity in the classroom can help improve students moral reasoning based on a study which compared two groups of students both taking courses on pedagogy, theories of learning, where one group took a course which focused social diversity and a women’s studies course within pedagogy and then another course used traditional teaching techniques (Hurtado). The study used the Student Thinking and Interaction Survey which is specifically designed for how students were exposed to diversity and the Defining Issues Test, also known as the moral reasoning test. The test was given at the beginning and end of the semester and the results showed that a general diversity course can help enhance student’s moral reasoning skills which should be a “standard equipment” entering into the workforce (Hurtado). Not only should campus culture have a positive climate towards diversity, it is important for faculty to practice and reinforce diversity goals. From a student’s perspective, when they are exposed to diversity, they tend to develop a more critical perspective of how their campus support these issues, especially if the faculty and staff apply these perspectives (Mayhew).

The next study analyzes how students of color racial groups experience campus climates compared to white students. The study found that students of color experienced higher rates of harassment and perceived the campus racial climate more negative than other students (Rankin). The study also suggests the difference experiences and perceptions from white students is due to the concept of white privilege throughout college campuses. White students experience harassment at a lesser rate and are able to ignore it which is considered a privilege not extended to students of color (Rankin). The study suggests that the campus climate revolves around higher education administrators and how they address certain concepts such as policies intended to improve racial climate. To successfully address the issue of campus climate, one must take a step back and examine the beliefs of not only the institution but the administration as a whole (Rankin).

Methodology

Through researching what different universities did to increase diversity, there can be found the most beneficial methods which could be applied to the Cal Poly Construction Management Department to increase diversity and inclusivity for the department. Action research was performed for this project to get a better understanding of what has worked in the past and what hasn’t. Along with a CM student survey, this project will discover new knowledge and findings on what students in the construction management department think will be most beneficial in trying to incorporate diversity. The survey analyzes whether this could be done through the Construction Management classes and consists of qualitative data and qualitative data. The survey looks at if students thought the CM department was promoting a diverse and inclusive environment. It also evaluated whether the department could be doing a better job. The survey expanded to collect some qualitative data and evaluated what type of diversity modules would be important to include in a few CM classes and what type of modules on diversity in the construction industry would look like.
Figure 1: The CM Department does a good job of promoting diversity and Inclusion.

Figure 1 shows an even disbursement of results with 35% neither agree or disagree, 30% agree or strongly agree and then finally 35% strongly disagree and disagree. This graph shows an almost even disbursement of individuals that are unsure of whether the Construction Management department does a good job of promoting diversity.

Figure 2: A diverse Construction Management program is beneficial for students entering the Construction industry.

Figure 2 shows 65% strongly agree, 18% agree while the other 17% disagree, strongly disagree or neither agree nor disagree. Over 80% of students believe that diversity can be beneficial for entering into the construction industry which shows how important it is for the department to focus on this topic during undergrad.
Figure 3: The CM department needs to implement a class tailored to address diversity and inclusive subject matters.

Figure 3 shows that 53% of students agree or strongly agree that a class should be implemented while 36% disagree or strongly disagree. After analyzing this data, the data is almost split between whether or not a class needs to be implemented but the topic still needs to be addressed.

Figure 4: If the CM department offered a diversity emphasized class or integrated modules into current curriculum, I would be interested.

Figure 4 shows that 64% say yes, they would be interested in a class or modules integrated into the courses. While 18% are not sure if they would be interested, 21% are probably not and definitely not interested. If the department offered an elective or a class that emphasized diversity, the majority of individuals would be interested in taking the class. If looking at the optimistic side, the 18% who are unsure, might still take the class if the department offered. This is total of well over 80% of students.
Figure 5: The CM department should promote more clubs that focus on diversity issues.

Figure 5 shows that 71% of students agree or strongly agree that the CM department should promote more clubs on diversity. 12% disagree or strongly disagree with this statement and 18% are neutral on the subject. There are currently no clubs which focus primarily on diversity issues. The CM department currently has two clubs which represent the minority and diversity of the industry, WIC, Women in Construction and CASA, Community and Student Achievement. The majority of students would be interested in a club that focuses on diversity in Construction.

Figure 6: Rank the following diversity tailored modules based on your notion of importance.

Figure 6 shows the importance each individual found certain modules tailored towards diversity. The results showed that each module was at least 80% of somewhat importance or extremely importance. The other 20% was divided between neutral, somewhat not important, or extremely not important. Diversity in the workplace had the greatest extremely important response at 73.5% of students agreeing that it should be one of the most important modules. Following the common theme of this survey, the number one module individuals are interested is Diversity in the Workforce.
Figure 7: Diversity modules introduced early into CM curriculum will benefit students.

Figure 7 shows that 76% of students agree or strongly agree that diversity modules should be introduced into the CM curriculum early. 15% of students disagree or strongly disagree with this statement while 9% are neutral on the subject. A large number of students think that if CM curriculum discusses diversity that they will not only benefit their time in the industry but also benefit their time as a student.

Figure 8: Should these modules be integrated into current classes? If so, which would be most applicable.

Figure 8 analyzes the classes in which individuals think diversity modules should be integrated. 37% of students believe it should be integrated into CM 102, 21% into CM 413 and 30% into CM 443. The data is split between three current classes of where to integrate modules for diversity which place into the favor of the department where they could possibly put modules in multiple classes.
Figure 9: A CM diversity class should be independent from other classes.

Figure 9 shows that 30% of students are neutral on the topic about an independent class, 32% of students agree or strongly agree while 36% disagree or strongly disagree. The data is pretty split about an independent class on CM diversity. With data like this, it would be most beneficial to implement learning modules in multiple classes.

Figure 10: Knowledge on diversity has an impact on a career in construction management.

Figure 10 shows that 79% of students believe that knowledge on diversity has an impact on their career while the other 21% or either neutral, disagree or strongly disagree. The majority of individuals believe that increasing knowledge on diversity will benefit them further in the workplace. To continue being successful, the department should focus on ways that will further impact over student’s construction career.
The final two questions of the survey compiled qualitative data on suggestions for other modules relating addressing diversity and inclusivity and if there were any comments from the students on this topic. The first question asked if there were any other modules that students wanted to see in a CM class that addressed diversity, equity, and inclusion. The topics that people would mention were emotional intelligence, representation of minority groups, language barriers on a job site, internal bias microaggressions, learning to have a better understanding of laborers and their work effort, equitable housing, and sexism. The most common module that individuals suggested was a language module/course to fulfill an elective to help communicate with different languages.

The last question asked for student opinions or any other recommendations they have. Some of the notable comments made by students were they would love to see more people of color start filling into the CM program, another comment was the CM department fails to be part of many diversity equity and inclusion opportunities that CAED offers and hopes that the CM department highlights diversity in the industry. An overwhelming amount of people want to see more diversity and inclusivity from the department, along with a greater discussion from the department of these topics. One noteworthy comment from a student was that this survey will be skewed due to the lack of diversity in the staff and students and that there is a lack of students who care about diversity and inclusivity in the CM department.

Discussion

The main finding from this action research was the students in the Construction Management Department at Cal Poly want diversity modules inserted in their CM curriculum. The literature review and previous research done on college campuses suggested that students take diversity courses to better prepare them for their future. Not only students but faculty as well, universities have created plans to increase the number of minority faculty. Universities have started foundations that support students of color who are very talented but come from low socioeconomic background and provide them with the resources to pursue college. These are all possible action item that Cal Poly Construction Management can take to further their program.

The research indicates that students who take diversity courses or have a background in them are more prepared for the workforce, increases their moral judgement and moral reasoning. The survey showed the majority of students are interested in expanding their knowledge on diversity from early on in the program. These tools will benefit students in their future careers within the industry and allow them to learn to work and understand multiple perspectives.

After looking at past literature, combined with data from the survey, the next steps for the CM Department that would best benefit their students is implementing multiple modules into different course within the curriculum. According to the survey, CM 102, CM 413 and CM 443 were the top classes in which students suggested to discuss modules on diversity. Starting with CM 102, Intro into Construction Management, the students would immediately see diversity being introduced into the program. This would also benefit students as they stated in the survey that early implementation of diversity would benefit them as a student. Research also shows that individuals who are introduced to diversity and inclusivity early in their college career are more successful in school. Next, CM 413, Jobsite Construction, where students learn to manage activities and individuals on the construction site. While working on a construction site, individuals will be working with a diverse group of people and interact with many types of people. A module in this class will allow students to learn to work with individuals from multiple backgrounds. Finally, CM 443, Management of the Construction firm, discusses management techniques and business techniques in a construction firm. Understanding how to hire, work with and manage people from different backgrounds becomes beneficial once in the workforce. Placing a module about working with individuals from multiple backgrounds will be very beneficial. These specific classes have been strategically chosen where students will benefit from having modules implemented on diversity.
Limitations and Future Research

Some limitations from the survey were the lack of individuals who completed the survey. Lack of individuals taking the survey does not strongly support the data. Another limitation came from one of the comments on the survey. The anonymous individual said “be aware of how skewed the data may be on this survey due to how the faculty and student sees the diversity within the department. As seen in the research from Ranker, white students generally see a positive campus racial climate which strays them away from any information relating to diversity and inclusion. The Cal Poly Construction Management department is majority white. With most of the department being white, many individuals will overlook this survey because they do not see an importance with diversity and inclusivity.

Future research entails surveying faculty and staff. The research suggests that campus racial climate begins at the educational leader’s level which is why surveying the faculty and understanding their beliefs will make the biggest difference to increasing diversity within the department. Getting faculty and staff more educated and more willing to discuss these topics not only within the construction industry but within the world will create a more comfortable area for individuals to discuss topics on diversity and inclusivity.

Action Items

These are the next steps that the Cal Poly CM Department could take to help increase diversity and inclusivity on campus:

1. Insert Modules into specific CM courses such as CM 102, CM 214, CM 413, CM 443
   a. Each class will have a different module talking about different aspects of diversity, for example CM 214 is Residential Construction and the topics such as affordable housing and gentrification could be a whole lesson for the class

2. Create better opportunities of recruiting students from more diverse areas and making the CM department more known for minorities and other opportunities
   a. The Construction Management Department can host events and camps to get more individuals interested in construction
   b. Have Construction Management clubs go to schools and host events to teach students about the CM department

3. Increase the minorities of the faculty for the CM department, there is currently one woman and one person of color
   a. Faculty should go through diversity training on why these topics are important and how to bring them up in the classroom

4. Promote more clubs that emphasis an inclusive environment and creates a safe space for students of color

5. The department get more involved in CAED Diversity efforts
References


Hurtado, Sylvia. “Linking Diversity and Educational Purpose: How Diversity Affects the Classroom Environment and Student Development.” *Educational Resources Information Center*.


