Construction Management Outreach Event with the Pedrozzi Foundation

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The construction industry today continues to be a male-dominated field, often lacking diversity. The lack of diversity and inclusion is attributed to the lack of equitable access to the industry. As a result of continued efforts promoting diversity and inclusion, in August 2022, the construction industry reached an all-time high, with 14% of all construction workers in the U.S. being women. This construction management outreach event, in partnership with the Pedrozzi Foundation, was created to expose young scholars to the topic of construction management. At the event, students and their parents were exposed to the topic of construction management, learning industry sectors, careers, growth opportunities, industry advancements, how to get started in the construction industry, construction management as a major at Cal Poly, and more. Industry supporters attended and provided great insight to the students answering questions and providing new perspectives on the industry. New connections between the Cal Poly CM CASA Club, Pedrozzi Foundation, and Professional Women in Building were established and reinforced in organizing this event. By executing an informative and interactive event for young scholars, we hope for a more diverse selection of students entering the construction management field and help combat our current diversity and inclusion problems.

Key Words: outreach event, exposure, youth outreach, construction education, equity

Background

The Pedrozzi Foundation is a scholarship foundation providing college and vocational scholarships to Livermore students. They aim to be one of the leading providers of scholarships, information, and other resources by engaging with the Livermore community and investing in students’ pursuit of education and career training. The Pedrozzi Foundation implements a Young Scholars Program where they recruit a new cohort of elementary students every year and guide them through their middle and high school careers to help them achieve their post-high-school educational goals. In mentoring these
students, who often come from underrepresented backgrounds, they work to promote equity through opportunity. The construction industry suffers from a lack of diversity and inclusion. The lack of diversity and inclusion is often attributed to the lack of equity and opportunity for those entering the industry. Another factor impacting diversity and inclusion is the lack of knowledge that construction management exists. By executing an informational and interactive event for high school students, we can hope for a more diverse selection of students entering the construction management field and help combat our current diversity and inclusion problems.

**Process**

*Pedrozzi Foundation Approval*

Once my senior project proposal was approved, I began conversations with the Pedrozzi Young Scholar Program Manager. The Pedrozzi Foundation is a scholarship foundation originating in Livermore, CA, providing college and vocational scholarships for students who wish to advance their educational and career goals. Being awarded a scholarship from the Pedrozzi Foundation allowed me to further my studies at a 4-year university. The Pedrozzi foundation has a Young Scholars program that selects excelling elementary school students and mentors those students through high school, preparing them for college and career readiness.

Prior to proceeding with the event at full speed, the young scholar program manager and I were required to present the proposed event to the Board of the Pedrozzi Foundation. In preparation for presenting the event to the board, I developed a proposal outlining who I was, the event's intended purpose, schedule, date, time, senior project description, and reasons for hosting the event. In addition, a flyer detailing event information that could be distributed to young scholars and their parents was drafted. Pedrozzi Young Scholar program manager met with the board of directors, and the construction management outreach event was approved within a week.

*Preparatory Planning*

Once Pedrozzi approved the construction management outreach event, it was time to develop a schedule. The Pedrozzi Young Scholars Program is most active during the student’s academic school year and has little to no events during their summer break as many students leave town for vacation. We decided to host the outreach event before my return to Cal Poly for the fall quarter and after the young scholars began their academic school year. It was determined that hosting the outreach event on a Saturday as a half-day event would allow for the highest attendance of students and their parents. With a date set in stone, we proceeded to select a location. The coordinator of the young scholar program coordinated locating a venue for the outreach event. After approximately two weeks, we were confirmed to have a multipurpose room available for us to use.

With a set date and location, it was time to establish connections with industry supporters. The event's goal was to host an informative and interactive outreach event for students concerning the topic of construction management. As a former Livermore student and Pedrozzi scholar, I was able to create a bond and relate to these students as I have been in their shoes before. In establishing that bond, a sense of security, encouragement, and opportunity was translated to these students, who often struggle to advance their careers due to a lack of knowledge and resources available to them. Bringing industry
supporters to speak to these scholars allowed students to envision themselves in a full-time career and be granted a fresh perspective on the construction industry today.

Construction Industry Support

During conversations with faculty at Cal Poly, I discovered the PWIB organization. Professional Women in Building is the voice of women in the building industry, dedicated to promoting industry professionalism and supporting members at the local, state, and national levels. Conversations began with the leader of the Bay Area division, and the outreach event was pitched along with the impact it would have on the community and future builders. With construction management being such a broad topic, industry supporters were provided with the flexibility to select a topic they believed would be the most helpful to students considering entering into construction management. Initial conversations with industry supporters expressed interest in the topic, and they believed more events such as this could help bring greater awareness to the construction management industry. Each subsequent conversation led me to a different point of contact. It was quickly discovered that many industry supporters were too busy with their day-to-day jobs and would not be able to attend or participate in the construction management outreach event. Each contact knew others who occasionally volunteered or supported causes like mine.

Throughout the interview period with industry supporters, I took special note of individuals who were interested and passionate about educating the youth about opportunities in construction management. During interview periods, I had a system in place to discover supporters’ backgrounds, how they got into construction, what types of projects they have contributed to and what they do now. Determining if they had ever seen or experienced issues of diversity, equity, and inclusivity proved crucial as that would incline them to support the construction management outreach event. Following six different interviews, a land developer expressed that they would be available for the date of the event and would be happy to attend the event. Follow-up email conversations planned and determined what content would be covered during the event and specific hours during which they would be presenting. Working with industry supporters, we found that a panel format would allow them to introduce themselves to the scholars and allow them to ask specific questions while allowing us to gauge topic interest.

With many of the Pedrozzi Young scholars attending the construction management outreach event as first-generation students, it was essential to include another individual who could relate to these students—doing so offered insight into being a first-generation student attending a four-year university. I figured reaching out to the Cal Poly CM CASA club would be a great resource to become involved with. Incorporating a club like Cal Poly’s CM CASA felt appropriate because it would bridge the young scholars, University, and Pedrozzi Foundation. Cal Poly’s CM CASA is a newly re-established club with its mission to support LatinX students in the Construction Management program, specifically, students first in their generation to attend college and promote diversity and inclusion among the student body and curriculum. CM CASA offers first-year students the opportunity for mentorship and guidance while students navigate the college experience. Other goals of theirs include supporting outreach efforts to ensure a diverse student body and facilitating the participation of LatinX construction management students in other clubs, competitions, and extracurriculars. Allowing club members to participate in this event would make a greater name for the club and allow members to become involved and support communities in need of mentorship. The Pedrozzi Foundation constantly seeks ways to connect its young scholars with college programs, especially those supporting first-generation students. Including Cal Poly’s CM CASA in the outreach
event allowed us to demonstrate to students that there are clubs/organizations devoted to supporting students like themselves. Both CASA co-president and I were a testament to the fact that we saw an obvious issue within our department and created a club to support first-generation minority students like ourselves when no club with similar goals existed.

I messaged current Cal Poly CM CASA club members describing the event and ways they could participate. Within the same day of reaching out, many individuals expressed great interest. Further conversations with the Cal Poly CM CASA club co-president confirmed their attendance for the construction management outreach event. Once in-person attendance was confirmed, we began planning topics to be discussed during the event and an event schedule. Given that the co-president and I were both in the same year, attending Cal Poly and within the same major, we opted to host a panel. I began by interviewing the guest and, with the time remaining, allowed students to ask other questions they may have. Interview questions were tailored to explore the co-presidents experience at a 4-year university as a first-generation minority student. Having another college student available allowed young scholars to explore a different perspective and be a testimony of a student once standing in their shoes.

**Breakout Activity Planning**

With guest presenters confirmed, the schedule finalized, and content determined, it was time to focus on the minute details. There was an emphasis on making this experience as informative and engaging as possible. Breakout activities and a snack period were scheduled halfway through the event to keep students engaged and avoid interest loss. With young scholars all at different levels and limited time, we opted for a construction safety vest customization activity. Providing students with a safety vest to take home allowed them to envision themselves in a construction management career path. First-generation students need to be able to point to role models that look like them or have come from similar backgrounds as them. Construction safety vests were supplied to students during the breakout activity, and additional craft materials allowed scholars to customize their vests.

With students being exposed to large amounts of information at once and short attention spans, we had to provide breaks for them to move, use the restroom and synthesize the presented information. As it is customary for the Pedrozzi Foundation event sponsors to supply snacks and refreshments to young scholars during events, we ensured sufficient snacks and refreshments were available for everyone in attendance.

In preparation for the event, photographic documentation would be required. With limited hands from supporters, I sought a photographer that would be available for the date and time of the outreach event. A connection of mine often performed freelance photography and was willing to support my cause and arrive at the event early to help set up. The Pedrozzi Foundation has consent from guardians to take photographs of students participating in Pedrozzi Young scholar events. Photographs taken during the event would be available to the Pedrozzi Foundation and my use.

**Pedrozzi Young Scholar Parent Presentation**

When planning with the Pedrozzi young scholar program manager, we wanted to devise ways in which we, as mentors, could further ensure the success of the Pedrozzi Young scholars. As a first-generation student, parental support was crucial to my academic and career success. Even though my
parents were not able to further their education past middle school, they were always involved in my college and career preparation. She noticed that during many college and career preparation events Pedrozzi young scholars attend, parents encourage event attendance. However, they are not exposed to the event content and cannot further encourage their students if they express interest. To bridge this information gap and support students in the best way possible, we included a parent presentation in our program.

The guardian presentation would take place at the end of the outreach event and be a condensed version of the information presented to their students. As many parents in attendance were of Hispanic descent, I gauged the parental language preference. A combination of English and Spanish would maximize comprehension of the presented content. Key elements of construction management were highlighted, given the allotted time remaining for the outreach event. Like their young scholars, they were exposed to what construction management is, aspects of construction management that may interest their students, the different fields, key players and tasks working in construction management, careers, growth opportunities, industry advancements, and more. Suppose the students express interest in the field of construction. In that case, parents now understand what construction management entails and can further support their students in their academic and professional journeys.

**Deliverables**

Before the construction management outreach event, various deliverables needed to be completed. During the initial pitching phase of the project, it was required by the Pedrozzi Foundation to complete an event proposal document. The document outlined dates, times, and locations of the event, what the goal of the construction management outreach event would be, who would be involved, why I was selected to host this event, how Pedrozzi would be involved in the event and how it would be executed the day of. In addition, an event flier was created to inform parents and young scholars of the upcoming event the Pedrozzi Foundation had scheduled for their students. Throughout the planning process and finalizing details with industry supporters, a schedule was developed detailing the half-day event.

Once the outreach event was approved, it was time to begin gathering information concerning construction management and organizing it in an easy way for Pedrozzi young scholars and supporters to understand. Pedrozzi young scholars were students with minimal knowledge of construction management. Because of this, I referred to the resources I had been exposed to in entry-level construction management courses and utilized those main ideas as the basis for some of the points to be discussed. The event would begin with a 30-minute construction management presentation to introduce the topic to students and be able to develop ideas as the event was administered.

The presentation began with a definition of construction management, establishing that it is the effective management of the project’s schedule, cost, quality, safety, scope, and function. Key players involved in every project, such as the owner, engineer, architect, contractors, and subcontractors, were also introduced. As the young scholar's program focuses on preparing students for college we spoke on Cal Poly and the Learn by Doing motto showcasing some of the hands-on activities we perform during labs. We highlighted qualities continuously used in construction to distinguish whether or not they would be a good fit for a career in construction management. Different construction sectors, such as commercial, industrial, residential, and heavy civil, provided students with insight into the types of
projects they could take part in. Tasks working in construction management were highlighted such as estimating, scheduling, managing costs, writing contracts, ensuring proper project documentation, and more. Construction is an industry with continued learning and opportunities, a factor that many students often search for. Being able to work in various roles over the course of your career eliminates the possibility of becoming bored or bogged down. Additionally, the opportunity to become your own boss and own a construction company presents even greater opportunities. Building Information Modeling was briefly described showcasing the technological advancements made in the construction industry over the years. Lastly, we outlined why one may consider construction management as a career and showcased statistics associated with growth in a position such as a construction manager.

Following the introductory construction management presentation, we had a conversation with the co-president of Cal Poly’s CM CASA and current construction management major at Cal Poly. The conversation began by interviewing our guest and getting to know more about them, what drew them to construction management, their future plans, and more. Young scholars enjoyed having a second face present with similar backgrounds to theirs. It allowed them to relate to the guest and have an example of the possibilities they could achieve one day. The open conversation allowed students to voice their questions surrounding the topic and be given valuable feedback from someone in the industry. Following the open conversation we transitioned into the safety vest personalization activity and refreshments break.

Next on the program was an open conversation with a Professional Women in Building member and land developer at one of the nation’s largest home builders. We heard from our guest speaker learning how they got started in construction management, the various roles they have worked in over the years, the struggles they have faced as a woman in construction, what she loves about her career, and more. As many of the students at the event were bilingual due to their upbringing, she displayed the importance of having a second language. Students were encouraged to practice their language skills, which are a huge attribute in any person’s career. We were thankful to have an industry supporter present who was able to provide us with insight into the construction industry today.

Given that the topic of construction management was a lot to cover in a half-day event, I created a brochure that was handed to all students and parents that attended the event. The brochure included key information such as what construction management is, types of construction, tasks in construction, why consider a career in construction management, good qualities to have working in construction, and how to get started in construction management. If parents or students had further questions, I offered myself as a resource for further questions and guidance. With many students asking questions about creating clubs or Cal Poly’s CM CASA and their purpose, I included their Instagram handle for easy access. Conversations with parents at the end of the event proved to find the information presented to be extremely helpful. They continued asking questions concerning colleges and construction management, thanking me for spending time with them and their students.

**Lessons Learned During the Process**

Throughout the process of planning and executing the outreach event, a variety of lessons were learned. During Initial conversations with the young scholar program manager, we established the scope of the construction management outreach event and the possible limitations we would encounter throughout the process. In my efforts to create a construction management outreach event for the students of Livermore, it was a goal to reach as many students as possible to create a more lasting impact on my community. After further discussions, we soon discovered that if we wanted to
open up this outreach event to Granada High School students, the Livermore school district may require us to make the event available to all students within the Livermore School District. I would organize the outreach event individually and have industry supporters join me. However, I would not be able to organize and host an event for the entire Livermore school district in the time frame I had available. This is why we decided to make the Construction Management outreach event exclusive to Pedrozzi Foundation young scholars.

When it came to conversations with industry supporters, I found this process to be highly time-consuming. Approximately one month was allocated to establish industry connections and approximately two and a half months of planning were required to confirm event attendance. Each person I met with and interviewed believed they had a better resource for the event, leading to scheduling more meetings and hearing the same idea from others. It was vital to be clear about what support was needed from individuals in executing the construction management outreach event. This was the only way to get an industry supporter confirmed for the date of the event. I also found it helpful to be overprepared. Often industry supporters would relay that they would get in touch with me once again or provide a handout with additional student resources. Unfortunately, that was not the case.

During initial senior project planning, we assumed no costs for the event. A majority of the efforts would be provided through volunteering or existing resources. Further research and planning revealed that funding for event snacks and breakout activities would be required. Without applying for University senior project funding, I reached out to companies I had previously worked with to see if they would be interested in sponsoring the construction management outreach event. Padilla Masonry Inc. is a company I had worked with for many years and needed additional exposure to the Livermore community. Conversations began with the owner of Padilla Masonry Inc., explaining the event's purpose and what their contributions would fund; they gladly accepted to support the event with a few conditions. Conditions were to post that Padilla Masonry Inc. supported the outreach event and that I utilized a portion of the funds contributed towards creating merchandise for the event. We opted to create stickers and posters for the event. We would have stickers for students, parents, and supporters at the venue entrance.

Feedback provided by students at the end of the outreach event made comments noting that the snacks were great and they enjoyed having a short break time to chat and move around. The safety vest personalization activity allowed them to move around and be creative. Many appreciated being given a safety vest as a souvenir to take home. If this event were to be replicated, and students younger than high school level were present, it is suggested to have more breaks in between for them to engage as their attention spans are not extended. The initial construction management presentation covered industry advancements surrounding Building Information Modeling, which significantly captured the attention of many students. During initial breakout activity planning, we hoped to have iPads or computers available for Procore, BIM, or Revit demos. However, lack of time and technological resources could not make it happen. For those looking to host a similar outreach event in the future, getting in touch with BIM, Revit, or Procore representatives is suggested to see if a demonstration of the software at the event would be achievable. It was found that including other disciplines that improved the construction management field intrigued students, allowing them to see how many different industries can come together to support and improve one another.

The goal of this outreach event was to impact the community and support the next generation of students considering their future careers. We found that many students within the Pedrozzi Young Scholars program thrived when scholars had the appropriate support and resources available. Pedrozzi
young scholars often participate in college and career-enriching events, but often parents and guardians are unable to grasp what their students are presented with. In students expressing interest and parents unable to support their interests due to lack of knowledge, the interest quickly disseminates, and the idea stops progressing. In order to have maximum retention of the information provided, it was vital for parents to be included in the outreach event. Students are more likely to pursue a new idea when they can present it to their parents and feel supported by them. It encourages scholars to dive into a new field and explore opportunities. Once parents arrived at the closing parent presentation, it was discovered that most parents were of Hispanic descent and did not fully comprehend English. The closing parent presentation was conducted in English and Spanish to meet the maximum retention of information provided. Analyzing your audience and being prepared to accommodate their needs is critical in the successful presentation of information. In speaking with parents at the end of the event, it was extremely rewarding to see many parents expressing interest in construction management and commenting on how this may be a future career for their students. They felt included and saw the importance of supporting their young scholars in attending college and career-enriching events such as this one.

With myself and industry supporters being well rounded with the topic of construction management, we wanted to find a way in which students could present their questions throughout the outreach event and get the answers they needed. Students often struggle to speak up or participate in presentation settings such as the one executed for this outreach event. In order to maximize participation, we gave out two gift cards to participating students. Each time they volunteered a question or comment, they would be handed a raffle ticket to win one of the two gift cards. The more times they participated, the more entries they had into the raffle, and the greater their chances of winning one of the gift cards. Motivating factors such as the raffle excited and engaged students making participating in the forums and open conversations with industry supporters an enjoyable experience.

One last lesson learned from this outreach event is to test equipment and setup prior to the day of the event. Unfortunately, we could not test equipment or set up prior to the event date, but we had sufficient time to set up early that morning. A minimal setup kept students engaged and made for an easy setup and cleanup. If technology is to be used for such an event and preparation is not permitted, it is suggested to plan conversations before the day of and ensure all connections and adapters are available. During the middle of the outreach event, we suffered from some technical difficulties, but luckily, I had support from Pedrozzi faculty and volunteers to help mitigate difficulties during the presentation. With a set schedule in place and everyone's time to respect, I had no time to stop and solve these issues. It was vital that I address and apologize for the situations at hand but, more importantly, keep going and complete the scheduled program.

Conclusion

The construction industry today continues to be a male-dominated field, often lacking diversity. The lack of diversity and inclusion is attributed to the lack of equitable access to the industry. This construction management outreach event, in partnership with the Pedrozzi Foundation, was created to expose young scholars to the topic of construction management. At the event, students and their parents were exposed to the topic of construction management, learning industry sectors, careers, growth opportunities, industry advancements, how to get started in the construction industry, construction management as a major at Cal Poly, and more. Industry supporters from Professional Women in Building and Cal Poly’s CM CASA attended and provided great insight to the students by answering questions and providing new perspectives on the industry. By executing an informative and
interactive event for young scholars, we hope for a more diverse selection of students entering the construction management field and help combat our current diversity and inclusion problems. Shifting perceptions of the construction industry is a complex task, but continued education and distribution of information through outreach events can have a lasting impact.

Photos of the Project

Introductory Construction Management Presentation

Open Conversation with Cal Poly CM CASA’s Co-President

Safety Vest Customization Breakout Activity

Open Conversation with Professional Women in Building Industry Supporter

Closing Parent Presentation

Construction Management Outreach Event Group Photograph
**Construction Management Brochure**

**How to get Started in Construction Management**

1. **Trade School**
   Trade school provides a foundation to the building and construction trades. Students participate in programs that incorporate academic and technical preparation.

2. **Community College followed by an Apprenticeship**
   Students can attend a community college where they enroll in classes preparing them to enter the construction trades. Course work includes practical skills and organizational skills required by the industry. After community college students become apprentices and begin working in the industry.

3. **College/University (4 years)**
   Another route includes attending a four-year university and receiving a bachelor's degree in Construction Management or related major such as architecture, civil engineering or architectural engineering.

**What is Construction Management?**

- Construction management is the "effective management of the project's schedule, cost, quality, safety, scope and function."
- As a Construction Manager you manage a construction project from beginning to end and act as a representative for the owner.
- One helps manage all of the different parties involved including: owner, contractor, architect, engineer, subcontractors and more.

**Enjoy the following?**

- Working in a team
- Seeing project come to life
- Innovating
- Problem-Solving
- Designing
- Taking Leadership Positions
- If yes, CM may be a career for you!

**Have Further Questions?**

I offer myself as a resource for any further questions and/or guidance. Feel free to contact me!

**CONTACT**
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**WHAT IS CONSTRUCTION MANAGEMENT?**

**WHY CONSIDER A CAREER IN CONSTRUCTION MANAGEMENT?**

1. Job Satisfaction
2. Opportunities for Growth and Advancement
3. Provides a Broad Skill Set
4. Above National Average Salary
5. Strong Job Forecast

**TYPES OF CONSTRUCTION:**
- Residential
- Commercial
- Industrial
- Heavy Civil

**TASKS IN CONSTRUCTION MANAGEMENT:**
- Estimating Construction Costs
- Building Schedules
- Managing Construction
- Writing Contracts
- Enforcing Safety
- Managing Budgets
- Communicating with Clients
- Ensuring Proper Project Documentation
- And more...
WHAT IS CONSTRUCTION MANAGEMENT?

- Construction management is the “effective management of the project’s schedule, cost, quality, safety, scope and function”.
- An owner wants a building built but needs a team to effectively build it from start to finish.
- You are an advisor to the owner and a representative of the project.
- Manage all of the different parties involved including owner, engineers, architects, contractors and subcontractors.

CONSTRUCTION MANAGER STATISTICS

- #1 in Construction Jobs
- #29 in 100 Best Jobs

Salary Outlook

Median Construction Manager Salary

Average Construction Manager Pay vs. Other Best Jobs

Sample Slides