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Opportunity

Introduction

When first figuring out what I wanted to major in while at my time at HSU, I knew that I wanted to join some clubs to help me on my journey to success. When finding the Society of Women Engineers I decided to try it out. The group was created in the 1980s to help promote confidence in young women so they could pursue a career in the engineering field. Being anything other than a male in a male dominated profession can be very scary, in a journal titled "Proceedings of the National Academy of Sciences of the United States of America" there is a journal titled *Female Peers in Small Work Groups Enhance Women's Motivation, Verbal Participation, and Career Aspirations in Engineering* which deals with the problem of confidence in classes that have many female peers and also very few. "...group composition had a large effect: women in female-majority and sex-parity groups felt less anxious than women in female-minority groups"(Dasgupta). Confidence is key, and without it many are doomed to fail. To be one of the few in a class full of men can be very frightening also disheartening to anyone looking into the career. With SWE, the group encourages everyone to be passionate with engineering and they also help others to strive in the major. HSU's Society of Women Engineers Chapter's mission is to "To support and encourage passion in environmental engineering through leadership, inclusion, and kindness."(HSU SWE). From being a member in the Society of Women engineers,

each member strives to help others overcome obstacles and to also give each member the opportunity to network throughout a community of peers and professionals.

Meathods

While learning more information for this particular group I first interviewed its President, Laura Wallace to find out more about the group's discourse and also why SWE can make a difference in changing the perspective of the engineering field. Before the interview happened, I emailed Laura and asked if we could meet at the library cafe, I choose that spot because I didn't want the conversation to be too serious, It is a serious subject but I did want the interview to be more laid back. She agreed to the interview and we met at about 11 in the morning. While interviewing Laura I asked questions like when the group was created, and why she thought It was necessary for Humboldt State to have a Society of Women Engineers on campus. When I asked her why she thought the group was created she responded with “ SWE encourages women to be a driving force, back in the 80s 5% of the classmates were women, now about 30% of people in the major are women”(wallace). After the interview I did know about what Hsu's SWE mission was, but I did want to learn more about the national SWE organization. The National SWE's mission is to “Stimulate women to achieve full potential in careers as engineers and leaders, expand the image of the engineering profession as a positive force in improving the quality of life, and demonstrate the value of diversity”(SWE). Diversity is important in today's work force because without it, we would have the knowledge and experience from all different cultures that could benefit everyone in the workplace. That friday I attended a group meeting to write down my observations of the group and also make a reflections page. At the group meeting, I observed Laura Wallace start the meeting on the projector by showing the members wht there was planned for the group and what they hoped to accomplish in future meetings and events. What I also observed while I was

at the meeting was how all members were engaged and communicated all ideas when Laura presented propositions for future events. During the meeting I also noticed how engaged everyone was with each other's success by offering assistance in other classes and also being of assistance with volunteer work when needed . Observing the group and also being apart of there contact system, all members get opportunities to learn more by volunteering and also interning for the many companies that have applications open. Just by being a member of the SWE community I am able to make new friends, get a job, and also gain opportunities to help the environment we live in. This group uses discourse to organise meetings, send out information of future activities and to also keep the group growing and improving with each meeting.

Results

While conducting the interview, I learned more about how the group gains money and how they choose what to spend it on. “We gain money by selling things like SWE merchandise and tea, we use club grants for big things like conferences and traveling. We use fundraising for little things, sometime we get corporate sponsorship”(Wallace). SWE can be a major help for people that are struggling with confidence and anyone who has low self esteem. Not only does SWE focus on the group's goals, but each member is there to help each others goals as well by helping prepare for whatever engineering career each member has. When asking Laura how this SWE chapter helps prepare people for future careers, she responded “ The group helps people with professional development, resume workshops, interview help, networking skills, career fairs and also getting careers through SWE”(Wallace). SWE of course accepts everyone, but the group does has specifications on who should and shouldn't join. “I want SWE to grow but it's not that big of a deal, to get people to join we usually go to lower level classes and introduce our club, I don't really appreciate ghost members so I don't encourage everyone to join.” Her response at

first surprised me because most groups do accept everyone, this group does accept anyone but I understand why Laura says that ghost members should join. They wouldn't benefit from the group and use what it has to offer. Group members can provide help with subjects they are good at, and they recently just made a SWE Mentoring program so members can be a mentor or a mentee and get help or support other students. A non engineering major couldn't benefit from those things at all, and would be a supporter of the group but wouldn't be able to do the internships that were available to them. While attending the meeting I was able to see how the group worked and how people benefited to this discourse community. While in the group everyone got a chance to speak their mind and also be apart of future opportunities.

Discussion

Something that I was able to learn from researching this group is how much support and communication with people with the same goals as each other can really help on your path to success. A possible reason as to why there could be a lack of women in the engineering field could be how we advertise engineering.. "The underrepresentation of women on faculties of science and engineering is ascribed in part to demographic inertia, which is the lag between retirement of current faculty and future hires"(Herbers). The way someone advertises something directly affects the types of customers you are going to get, not many women are portrayed as engineers in the media which means that many women can't see themselves as engineers, no matter the kind. While researching the topic of women in engineering before I was involved in the major I came upon a TED Talks speaker, her name is Debbie Sterling. While she was speaking she brought up the major point that as kids boys are exposed to legos and are able to build things which may lead to boys becoming engineers, while young girls are exposed to dolls and play houses. Debbie Sterling created something that she was put down by everyone to make,

she created Goldieblox. According to the Goldieblox website you see a pie chart showing the amount of female and male engineers worldwide and they also state their goals. “At GoldieBlox, our goal is to get girls building. We’re here to help level the playing field in every sense of the phrase. By tapping into girls' strong verbal skills, our story + construction set bolsters confidence in spatial skills while giving young inventors the tools they need to build and create amazing things”(Sterling). With women like Debbie Sterling changing the perspective of people worldwide, it's important to continue to break boundaries. The Society of Women Engineers are one of the few groups that promote diversity in the engineering field and if this organization were advertised more often on the media, children might see it and think they could do it as well, all it takes is a spark of inspiration and many more females would pursue the career. Being a woman in a male dominated group can be very intimidating for women of all backgrounds. In the year 1892 Elmina Wilson gained a degree in civil engineering, and her masters in 1894. Which is proof that not only men can get a degree and do well in an engineering career. Due to the amount of confidence and friendships that SWE helps build in young women, they can leave Humboldt State feeling confident that they can do anything no matter the history of the profession. Although the road to success might not be so easy, many women won't get recognition for their work just because they aren't men.”[...]men dominate 80% of all the scientific production in engineering. Women engineers publish their papers in journals with higher Impact Factors than their male peers, but their work receives lower recognition (fewer citations) from the scientific community. Engineers—regardless of their gender—contribute to the reproduction of the male-dominated scientific structures through forming and repeating their collaborations predominantly with men” (Ghiasi). Sadly, justice isn't always served for everyone, but that's what makes SWE so important to our world. In today’s society women are treated

better than how they were but that still isn't enough. According to the huffington post "Women still earned only 77 cents for every dollar that men earned in 2012, according to new data from the U.S. Census Bureau" (Basset). If more women don't come into the field, this will keep happening to hardworking women around the globe, but with the help of SWE bringing more of the younger generation into the field this might change for future engineers to come. Potential members of the Engineering profession are informed what engineering is when SWE organizations volunteer and speak to them, by HSU's SWE group attending local Girl scout meetings and planning events where young girls can discover more about the program the changes that those young girls know of and want to become an engineer are very high. With the group's current members, Opportunities to network and communicate are offered during meetings, emails, text and word of mouth. Networking is necessary to be successful, "Networking is about making connections and building enduring, mutually beneficial relationships"(www.strategicbusinessnetwork.com). In SWE all members get the opportunity to network through meeting with professionals who work at firms nearby or even meeting with recent graduates who know people at different firms, it's about who knows you and what their strengths are. By being a member and attending meetings weekly, I am able to see how each member of the group is so willing to help each member of the group succeed in all of their classes. I also get to see how environmentally conscious the group is and how they share an interest in knowing what environmental problems are happening throughout the nation. Even though women have come far in today's society, there is still a lot of progress to be made. Women are being silenced throughout the engineering workforce, being paid less than the average man, and are also being treated unfairly through other fields as well. With groups like the Society of Women engineers and companies like GoldieBlox being created and advertised to

the public , more women can come into the major at the university feeling confident with who they are and what they have to offer the program. To make the image that women can do anything any man could do, organizations and companies need to branch out to everyone, not just girls but boys to and say that anyone could do anything no matter what the circumstance.

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