

CHAPTER 8 - INTERPERSONAL SKILLS

LEADERSHIP AND CONFLICT MANAGEMENT

Along with daily activities, teachers also emphasized building teamwork skills by assigning an array of group projects throughout the school year. These projects took place over several weeks or a semester. Students described these projects as self-directed exercises during which students had freedom to collaborate. These projects allowed students to develop their leadership skills, negotiate conflict, and socialize with their classmates. Teachers used group projects as opportunities to imbue students with the confidence to lead their peers and be led by their peers. Each project format gave students freedom to collaborate and allowed them to develop their leadership skills, negotiate conflict, and socialize with their classmates.

Leadership

Mr. Holt described his students as “strong academically” who were not used to being challenged in the way they were going to be challenged by the program. “It’s not something that’s going to come easily to them.” In Mr. Holt’s experiences, the “average student” was undecided about the field they want to pursue so they were trying fields out. Mr. Holt believed his students needed to work on self-confidence because “while they’re bright kids they’re surrounded by bright kids” in their engineering course. Students were not comfortable learning such new material in courses where other students may know much more than they do.

I think that many of them are pretty sure that somebody else knows more which I think is kind of uncomfortable for them. Most of them grew up probably being the brightest kid in the class and you put them in an environment where they’re not the brightest kid in the class. And so a lot of them are going from always being sure, being the kid with the answer, and the kid who knows to “Wow, I’m not sure about this anymore. I don’t know

what we're supposed to do in this project and I don't immediately have an obvious answer of what we're supposed to do." So there is a tendency [for students] to kind of hang back a little bit and wait for somebody to make the decision.

Mr. Holt felt many students were uncomfortable knowing they may not be the smartest student in these classes which makes them more likely to defer to other students rather lead and take initiative.

Mr. Holt gave an example of how he encourages students to develop their leadership skills. He assigns students a computer integrated manufacturing final project that he described as "pretty involved." Students design a simulation of a flexible manufacturing cell (FMC), a system of machines that conducts multiple automated tasks. Students build the FMC on a small-scale using robotics parts and programs and test it for cost effectiveness, efficiency, reliability. The project is large enough to justify putting students in groups of nine or 10. Mr. Holt appoints a group project manager who is not the star student of the group but a "middle of the pack kid" who is still a top student because they are all top students but may be holding back. "I want that kid to have the opportunity to rise to the challenge" (Mr. Holt). Mr. Holt acknowledged that these students do not readily accept being a leader. He gave an example of a student resisting and claiming that a classmate is better at a certain task and turned that around into an example of good what it takes to be a good leader. If a student asks, "Well how did you pick me?" Mr. Holt responds:

I said, "You're good at mechanical stuff. You're good at software stuff. You know enough to have a good understanding of all of these but you're not so interested in one that you're going to focus entirely on it." I've had someone say, "But he's much better."

[I respond] “Great, you’ve done a good job of evaluating the resources you have available to you. You know what job to give that kid.”

Mr. Holt used this as an opportunity to help these students recognize their own strengths and interests and grow as engineers as well as recognize the talents of their classmates. This is an example of how a teacher can assign team leaders and encourage them to utilize team roles to meet project goals.

Andres (HHS) was an admitted “slacker” who accepted the mantle of leadership as a senior. “I’m the leader in my group, so I’ve got to keep like everybody on task and if they’re not on task or they’re slack, it’s going to bring you like delays on things that you got to get done and you’ve got to set a certain timeline so like you get things done in a certain time.” Even though Andres (HHS) acknowledged that he struggles to stay on task, but as a leader Andres (HHS) accepted the responsibility to keep other students on task. His classmate Rachel (HHS) learned how to lead her group to confront new challenges during a bridge building activity. “You lost a person or whatever because they’re sick, or the design constraints have changed, you need to fit this or the design itself that you came up with has to be changed in order to work.”

Conflict Management and Negotiation

Teachers also build leadership skills by demonstrating confidence in their students’ ability to initiate and complete self-directed tasks and projects. Students complete problem-based capstone projects in which they identify a problem, build a prototype to solve that problem, test the prototype, and report on it. These group projects forced students to confront the flaws in their own ideas and learn to accept the ideas of others at each phase of the project from conception to completion. Students described continually blending three or four group member ideas into one

cohesive project plan of action. Tyler (WHS) preferred working in teams “because we all have different ideas but we can blend them together to make a better idea.”

Wayne (WHS) described one of his biggest challenges as “being collaborative and united on a project.” For Wayne (WHS) the big challenges of group assignments were managing different personalities and different ways of thinking. He learned that “everybody’s unique” in their approaches to problem-solving. He used communication strategies such as “talking through a problem, explaining my thoughts to someone else and having them do the same or just getting frustrated with each other and then finally learning how the other person acts or feels” (Wayne, WHS). In this respect, Wayne (WHS) learned how to benefit from both concordant and discordant intragroup dynamics in order to manage conflict and advance toward achieving their common goals.