

Module 2

1. Students enter the classroom knowing what is expected for the day, because they have been briefed at the end of the previous day's class. Behavior from a previous class period determines whether they will be able to work in the lab or do extended bookwork. Attendance, announcements, and reminders of homework are presented in the first five to ten minutes. The safety glass lock box is then unlocked and students go to work on a series of projects assigned at the beginning of the semester. In the design class, students work on drawings at their own speed. The teacher wants them to struggle a little, giving them future class periods to continue figuring out answers on their own. At the end of class, five to eight minutes is focused on clean-up and all students report to the classroom before dismissal is granted.

2. The teacher gains student attention by controlling the incentives of working in the lab, which most students would rather choose to participate in over doing bookwork.

The teacher introduces key concepts in the different work stations they each have to visit. Some projects can be started at different stations, and other projects require following a specific order.

As the teacher walks around, he acknowledges their accomplishments and tells them that they are ready to move up to another step. On occasion, he will have students who are a step ahead help those students who are next up. I think that some of the best senses of accomplishment can come from a teacher telling a student that he/she is capable of introducing a skill to another student.

I believe the reward of taking the class is being able to take a project home that a student can say they built using several different pieces of equipment in the shop. A bigger part of the reward is actually being able to use the project for a practical use.

The teacher manages learning activities by having students work on more than one project, so that they can stay on task until help is available. Students go to him when extra material is needed or if a process isn't working for them.

The teacher maintains discipline in the same way he gains attention. Freedom is given to students who behave and follow safe practices in the lab or students will be given graded assignments the following class period.

3. One of the tasks I observed in a fifteen minute distance observation is how the teacher helped a student set up tooling on a milling machine. He first explained how to remove an undesired tool from the machine. He then explained why another tool was the best choice for the size and shape of the project. The student was instructed to use a digital caliper to determine that his part was level for milling. After assisting in the leveling of the student's part, he showed him how to zero the scale. The student was given instruction of safe practices and allowed to demonstrate his knowledge by

performing a couple passes on his own. After successful completion, the student was allowed to continue. At the end of the period, the student brought him the part for evaluation. The teacher congratulated him on meeting the tolerances met in the part design.

4. I most likely will be a teacher that will need to rely on the ideas of other teachers to get started. As I get comfortable using the experiences of other teachers, I will want to experiment with some of my own ideas. In the design class I have been observing, a student was struggling to find all of the hidden lines in a two dimensional drawing. My first instinct was to give him a hint that worked for me in college in which I had checked my work by drawing vertical and horizontal lines between the views. The teacher told me that he would use that hint as a last resort because he wanted them to develop their spatial understanding. I then thought about it for a while. When the student was still unsuccessful, I tried my own method. I told the student to pretend he was holding the part in his hand, imagining he could feel every edge. Then I told him to look at his drawing as he pretended to feel every edge. He found his error in seconds. There is nothing more rewarding then to see a student discover a new method that works for them, as well as an idea I discovered on my own.