

GRACE TEO: Having our students be prepared to face failure is really important, because I think it's essential to the design process. Professor Rob Miller came in to do a lecture on user-centered design, very early on in the semester, where we basically presented them this design model where you do iterative design. Which means you quickly come up with a prototype, you fail as fast as possible, you figure out where everything's going wrong, and then you make a second prototype. And you keep going around and around and around this circle, until you reach that perfect prototype at the end of the day. And so I think they knew from the start that they were going to have to just keep making things and seeing how they were going to go wrong. So failure became very [? intrinsic ?] part of the design process.

In fact, we told them right from the start, we expect you to have three prototypes at least by the end of the semester. And these are when your prototypes should be ready by, and these are the weeks where you will get to test them. And every week they had to come back and tell the mentors where things went well, and where things didn't go well, according to some set of success metrics.

WILLIAM LI: Yeah, I think the design review of these mid-term panels were really just that. To try to get feedback on the design, or really explain the progress that they had made so far, and so I think that was a big reason why we did that. I think having mentors this year was helpful on this front as well. The mentors were pretty in touch with how teams were progressing. We had each team fill out this little form every week explaining what was going well and what they needed help with. So a big part of it was creating the culture that it doesn't have to go perfectly well every week. There can be setbacks, there can be different challenges or obstacles to overcome. But we're here to work through them and figure out how to deal with this situation, or brainstorm some ideas.

One of the other things that we tried this year was to have these lightning updates at the end of every week's lab, just to inform the rest of class where you're at, and what you were trying, what progress you were making. I think this maybe set up a little bit of friendly competition, to see where other projects are at. But it also helped maybe the class feel like we're all in this together, I suppose. It's not always going to be easy. Maybe there's logistics challenges. Maybe there's design challenges. Maybe there's other sorts of things. So I think students were pretty open to sharing honestly what their progress was, and what they were doing. At least

that's what we tried to do.

GRACE TEO:

We did get feedback from students, though, that the lightning updates might have been too regular. And they did say that it would have been nice to have it once every two weeks instead of every week, and that would just give them more time to work together as a team. And we realized too that, for our students, being able to do group work outside of class is actually difficult because they all have such busy schedules. So any time they structured a time within a class to just do group work together, that was really valuable for them.