

SEAN ROBINSON: Oftentimes the tasks we give students in the lab are really complex. They may not have all the background they need in order to complete the task when they're starting at. That level of uncertainty really causes some anxiety in the students, and can be a barrier for their learning. But if you're a professional scientist, this type of anxiety is something you're actually very familiar with.

Most of us really don't know what we're doing when we start a new research project. I find it very useful to notice when a student is in that condition, and call it out, and actually explain how this is actually a very normal thing. This is not them being in a state of failure.

This is them actually feeling like what a real scientist feels like. A major part of a course like this is building up the students' identity as a scientist, helping them move their understanding of themselves from being a physics student to being a physicist. If we can achieve that by the end of the semester, then this course is a complete success, even if they've learned not a single thing about quantum mechanics or relativity.