One active learning strategy that I use in 595 are called mud cards. And they are a really easy activity to use. Anyone can implement them, and it's a really low barrier.

So I like to introduce that early in the class so that students can see that it doesn't necessarily disrupt the class flow. It doesn't really take a lot of prep. It doesn't take a lot of resources.

So a mud card is, at minimum, is an index card. And at the end of every class, I ask them to write down on the index card what they might want to know more about, what they're still confused about, or something that they found particularly compelling or interesting.

I ask them to specify that so that I know if they just say, active learning, I don't know whether they thought it was really interesting or whether they thought it was confusing. So I asked them to specify.

But we use we use that because-- and then I also talk to them about why it's so effective. They're able to anonymously identify what they understood or what they're still confused about.

I can go back to my office afterwards, I can look through the cards. I can sort them out really quickly, even in a large class, and I've used them in a class of 100 people, even though 595 is just around 15.

And generally speaking, the cards fall in three categories. You get three main problems. And so you know that maybe you didn't do a very good job of helping students understand a particular topic, or that students are really interested and want more information about something. I know that really easily, really quickly.

So I can make a decision to either get more resources, write something up that I can post on our course website, or I can come to class the next time and say, hey, looks like most of you were confused about X. Let's talk a little bit more about that.

And I can prepare ahead of time and be totally ready to go in with multiple explanations or multiple examples of whatever it is people are confused about.

I looked over some of the mud cards we had from last time and there were some really good questions, some really good points. Someone asked if all those learning theories that we
discussed were equally valid.

They get they get targeted feedback based on what they don't understand. And it's really easy. It takes two minutes at the end of class.

I have a colleague who calls them tickets to leave, meaning he doesn't let people leave the class until they've handed him an index card with something on it. But they're very, very effective.

I believe they were first used in the Aero-Astro department here at MIT, but they're used all over the place now and they're extremely, extremely effective.

For instructors that are thinking about using mud cards in their classes, I would say the biggest issue or the biggest concern would be to make sure that you use them early in the semester and that you use them often.

If you use them one day and then you don't use them for another two weeks or even another week, students really won't get in the pattern of filling them out and filling them out thoughtfully.

And they won't see the utility, because you really need to come back the next time with useful information saying, I looked at these cards. I understand you don't get this. Let me help you. And that act really encourages students to keep filling them out, and it's just a win-win for everyone.