Thank you. My presentation’s a little bit different in that my focus is more on the actual individual teacher and not so much on the course. Although the course design is extremely important and it is an integral part of my approach.

And I wanted to talk specifically today about the preparation of primary school teachers. Typically I convene secondary science education courses so I’m a high school teacher myself of science, but I got the opportunity to work with our primary science teachers in a new degree which is again is a little different. It’s not a first year degree, bachelor’s degree. It is for returning students who have already completed an undergraduate degree. But these students are often coming from quite a significant break from higher education. So that in some ways they’re very similar to our first year students.

So they’re coming into our graduate diploma which is a one year course where they need to learn to be a primary teacher in 12 months and learn all of the eight key learning areas. So it’s quite challenging for the students. And so they come into my course and they come from a wide variety of different degrees. And typically these students do not have a science background, so our challenge in the course is to try and develop some science understanding, but more importantly the key challenge was developing confidence in these teachers that they could actually teach science to their students.

So they only have a very accelerated time. They have a nine week semester because they go out on their practicum. So really we have around about seven weeks to teach them all of the science, and all of the pedagogical skills they need so it is very challenging.

So an issue, as I started to say, is that they don’t have a science background. So my main goal is to give them: one the motivation to teach science, and two the confidence to know that they can effectively do it. So that really presented a challenge to me because in the secondary science area our teachers usually are confident because they’ve come from being scientists in the field or a science background. These students were very different. So this was quite challenging for me three years ago when I started this course.

And this idea that science is only accessible to the best and brightest is really prevalent throughout this cohort. They really feel that they’re not smart enough to do it.

Now my approach is five steps and I’m not obviously going to go through all of them today. But it’s a holistic approach. And you’ll see the first three steps really are the personal teacher centred ones, and then of course here are more of our course components. Clearly having an effective course design is crucial and a lot of the
feedback I do get is that students like a well organised course, they like clear expectations and they do like the types of assessment that I implement, which is continuous assessment, so they’re actually assessed every week for the first six weeks, via an online quiz and also through their workshop activities. So they really are, the feedback from that has been very positive in that they get right on top of the assessment early. And then we end with a summative exam, where we put all that information together and we test those ideas out in a new context.

But I wanted to talk a little bit about the first three steps. The first one: creating a safe learning environment. And by that I mean that we let them know very early that the majority of students do not have a science background, and I explicitly say that in the first lecture because it gives them permission, okay, to put forward ideas that perhaps aren’t correct. And it’s really important to create that safe learning environment right from the beginning. So right from week one they feel confident if they don’t know something to put a question out there and they’re not going to be ridiculed.

And that’s’ really in part with step two: getting their respect. Providing a caring environment where they can come to me at any time, they can contact me at any time, and they know that they’re going to get a response from me that’s’ positive and that it’s okay that they don’t know. So I find steps one and two so important to establish early. And once they’re in, like it’s almost like a hook. They trust you and they’re prepared to commit, okay, to your course and to your class.

Facilitating inclusion’s obviously important. Our workshops, we have the same tutor that does all the workshops which is quite challenging, but between herself and I we know all of our students. Okay. And we have over 100 students. So we facilitate inclusion but getting to know those students both in the lecture and in the workshop. So we have a presence there, and the tutor comes to the lectures as well, which is good.

This one’s most important: Modelling enthusiasm and passion. And it’s crucial. I think this one’s the most important of all, and that’s the one probably I get the most positive feedback about is that I am very enthusiastic and passionate for science. And that really reflects on the teachers, and the feedback has been positive in that they’re saying that “We know to get students to learn you have got to be interested in what you’re putting out there”. So that modelling of passion for what we do is so crucial and it has to be authentic. You can’t just pretend that to your students. So that’s’ very important as well.

This one: creating engaging and challenging learning experiences, there’s a number of things we do in the classroom with the students interactively in the lecture. So we get them down for role plays and we are very interactive with the students. But we do provide challenging learning experiences. Right up front is high expectations. There’s a lot of content, there’s a lot of pedagogy, but they are made explicitly aware that it’s not going to be an easy course and they are going to have to engage fully every week.

Okay. Some of the outcomes, I feel a bit stupid now putting all that about myself, but the [0:05:36.2] are very high in this course, so it really is a course that’s made me stop and
think well what is it about it that students really love. And these are some of the comments, and you can see the personal ones about personal teaching style are central. They do love the well organised course but the thing about the enthusiasm and passion and giving them confidence is key. They really want to do well. I think one down here said “I wanted to do well for this teacher”. They were inspired enough to want to give back in that way. So that was really interesting.

Okay. I’m not going to talk much longer. So that’s’ it.

[Applause]