Experiential Learning and Innovations in Professional Education – Interdisciplinary Roundtable (Faculty of Dentistry)

Professor Michael Botelho

The University of Hong Kong

Thank you so much for the invitation and to be here today. I've got a little bit of a different angle, so my focus is more on the innovation. I'd like to share with you some pedagogy that I've been looking at and trying to explore. But I'll tie it back to experiential a little bit later. A personal story, I'd often find that I get a knock at the door and the student would say "Dr Botelho, do you have a moment? I've got this case and I don't quite understand it, can you explain it?" So the student would come in and maybe on the run with somebody else. We'd have a chitchat, they'd say "I know you taught the theory in the fourth year, but now I'm in the fifth year and I've got hands-on with patients, how does that apply to this, there's a gap I don't quite get." They might not have said "the gap", that's my interpretation of it. So then I'd say what do you think why is this, how is it going, whatever. So I do a Socratic discourse with them and I guide them to their solution. They'd walk away, they'd go out the door, and I'd go "That was such a good teaching moment, nobody learnt from that experience." So then I thought "Hang on, why don't I video record these discourses, this dialogue that we're having?" We focus on the case materials I uploaded onto the learning management system, and then students can watch it on demand when they want it. It's bespoke personalized student-centered vignette that I've created. If you deconstruct this and you start looking at the elements of what's going on with this particular teaching episode, we've got a problem that the student has, their Socratic questioning that is going through the students answers and the case materials in a moment. Those moments together build up into what I've called a problem-solving pathway, and at the end you get to an answer. That's a nugget of information that students can understand. It's tangible, student-driven, and problem-oriented. This is applied to other areas I think it does, so this happens to be a student-driven one, but it could be student-centered. Maybe you're doing some peer-to-peer learning activities, and you doing something

there. Of course, it's teacher-driven. I'll show you in a moment the teacher-driven one that I'm doing.

You've got the Socratic dialogue, that kind of implies a hierarchy, the questioning and the answers, depends what that hierarchy is. Is that a student to a teacher, is that a student to a junior student. Or it could be discourse where you're partners, and it's a more of an equal level that the dialogue is occurring. That process, maybe you're constructing some knowledge in that process, maybe there's some modeling behavior that you're observing on there, maybe there's some analysis of that moment that happens to be going on. Ultimately, you end up with an answer. My students tell me that when they watch these videos, they consider a model answer. Perhaps it gives you insights into something that you're watching during that expert-student dialogue. So in a sense, in essence what I think we've got four key elements. We've got a learning need, we've got dialogue, there's meaning coming out of that dialogue, and then ultimately there's some kind of learning outcome going on. That's my understanding of what's happening with this episode, but I've used it with other scenarios. I'll just show this one, but I've got other ones. I use worksheets as an object to focus a particular learning task, that's my task design. I give them out on week one. Students take them home, fill it out, they come into the class. They do their own discourse, peer-to-peer clarification and understanding. Then I go around just like a roving reporter with my microphone interacting with students performing Socratic dialogue. I'm asking them what, when, why, how, probing their understanding, seeing how they're getting. We upload it online, it's a one shot in the moment, no editing. I don't do any editing on any of the videos. There's no requirements for students to watch them. They're there if they want them. So rather like Gary saying, as soon as you make it compulsory, the fun goes out of it.

On their worksheets, I designed this one with the aim that I wanted to allow them to have particular access to a particular question. So when they pull out that worksheet coming up to an exam, and go "Oh my goodness, I've written those notes on question five and I don't know what it is." Well, that allows them to log into, they go to question five and relive that moment. It won't necessarily be their cohort, it might be a previous cohort, because I haven't always recorded every year, so some of these may be a little bit historical, but they're still relevant. What I've realized is there's power in video. With video, we tend not to allow any opportunities for interaction or discourse

with it, so when you ask a question, it's not time specific. So I think you've got opportunities for creating platforms. This is one that I'm currently showcasing, it's called VideoVox. It's a learning management system and video platform, but it has time specific discussion boards. You can ask a question at a particular moment in the video and get an answer, or create some discursive comments about that moment. There're imbedded multiple-choice questions and there's also some analytics in it as well. I could log on but I won't show you that yeah I've got some pictures of it in a moment. There's a new module that we're building. We've got help with, honestly, many other faculties across the university engaged into this, so it's what at the moment we've called it I-assess. Students will be able to upload their own video presentations, maybe it's their elective report when they've gone away overseas, maybe it's a community discussion, maybe it's a moot recording. Students will then be able to log on and then do peer feedback under the domain or rubrics that you wanting to get feedback on. We don't just want this video. I think we also got to create some writing exercises as well, so that's also in the design process at the moment.

I'll just show you a little bit of what the VideoVox is like. This is the course that I'm starting in two weeks' time. I've got this range of videos, they have to be expandable menus, and you can see what's in there. They've got titles on them, and then you can start creating comment during the video. So in this video, it's a pre-briefing, it's before we go on to the clinic. It takes about 30 minutes, and I say to each student, what are you doing today, what's your patient case, why are you doing that, how is it going, what happens if. We record all that and then in this case, what I've done is I've given them an exemplar I've gone through, and I've typed in what is being discussed and what I think is relevant. Such that they can jump into it and you may be able to see on there, there's the "jump to", you can click on that and it will take you to that moment in the video, and you'll be able to listen to that moment of another group or your group. But I don't have time to do that, so I'm now asking my students to do that. Not of the briefing I've recorded with them, but listening to another group's briefing. Such that they'll go through that and they'll type in those notes. Such that others will be able to access that if they want. At the moment, we're going to put keyword tanks and make these sections within a video searchable. So next Thursday when they've got Mr Chan coming in, they've got a complete denture and they're doing a particular stage in the complete denture. They can type in these keywords and it'll pull up the video discussion or maybe video examples of how to manage it. They'll be able to go through that as a preparation when they

go onto the clinic. The main reason why we're going to be using this one is that, our students do go away for elective experiences, they go overseas, they visit an institute, and they maybe go do NGO work or something like that. One of the things we get them to do is they do an elective report, they do a presentation. So what we want to do here is put the elective reports online, maybe it's a video, maybe there's some notes with it as well. And then what I'd like to see is the junior students evaluate the senior students' elective reports. The junior students then get an insight into "what is it going to be like next year when I'm doing my elective, when I'm going overseas, do I want to go there, they had a good time there, maybe I should go there." So that's something where I can see that, this pedagogy kind of developed into a platform fits back into how it might be able to help experiential learning. Thank you.