Transcript – Decoding Panel

Start of Audio [0:00:00.0] - Part I

Introductions omitted from transcript [0:00:00.0 to 0:04:00.3]

Brett McCollum: Thank you Jim, so to give you an overview of how things are going to work today, Margy is going to serve as the interviewee; she will be a faculty member reflecting on her teaching practice in an effort to decode her teaching discipline and identify the roadblocks that learners are encountering. Genevieve and Michelle will be our interviewers; they are experienced decoders who will prompt Margy with probing questions encouraging her to reflect on the processed and techniques that she employs as a disciplinary expert. David is going to serve as an observer; as an experienced decoder he will pause the decoding process periodically for our benefit. He will then point out the particular value of questions or reflections, and the key point is that he will be providing commentary, not critiques. The audience is encouraged to ask questions during these pauses directed at either David or any of the participants. I will serve as David's assistant. Some of you may know how early in my career as an assistant professor I joking commented that I may be an assistant professor, but I am nobody's assistant. Well, today I will be David's assistant! So whenever you are ready - thank you.

Genevieve Currie: So I am going to start. Margy, I am just going to explain the process first of what we are going to be doing. So you know that we are going to be trying to understand where you get stuck with a particular concept, or where your students are stuck with a particular concept. So Michelle and I will be asking you a number of questions; sometimes we will be writing things down, so we are still listening to you, but we want to remember what you are saying. Sometimes we will ask you the same question more than once, so you may think, "You just asked me that, why are you asking me that again?" Sometimes we want you to go deeper, or we want you to try again and rephrase what you are saying, so that is a normal process. Sometimes too through the interview you may feel stumped and frustrated that you feel stumped and stuck, and that is also a good sign. So most people that we have interviewed have gotten to that point and that is also sort of getting you to go further than you have gone before, perhaps, and thinking a little bit differently. So to start with, we have asked you to think about a bottleneck. And so a bottleneck is something that you know very well yourself, and when you are trying to teach it to your students they don't get it, and you don't understand why they don't get it. So they are stuck, but it is preventing them from moving on with their learning and it can be quite frustrating for them and for you. So if you could share your bottleneck with Michelle and I, that would be a great place to start.

Margy MacMillan: So the bottleneck that I see quite often as a librarian is students who have a research topic in mind, let's say homelessness in Calgary, and they are looking for information on it and they are looking for perfect match information. So they want a research paper on homelessness in Calgary to support their research paper on homelessness in Calgary. I am looking at their screen with them and I see a wonderful paper on homelessness in Portland, and it is very difficult to help the student see the usefulness of that paper because it is not Calgary. Or if they are looking at homelessness in female teens they may pass by papers on homeless in young males, or homelessness in young single mothers because it doesn't match their concept of the paper.

Genevieve Currie: So it sounds like they get really stuck if it is not exactly what they were instructed in their assignment to look for? So if the literature is not exactly the same population, for example, Portland and Calgary, they don't think it is okay? The literature is not okay.

Margy MacMillan: They either don't think it is okay to use, or they don't see the value in a partial match because it is not … it is not their topic if it is not exactly their topic. They get very frustrated and they say, "There is nothing on my topic. I can't find anything on my topic," and we hear that quite often. It hurts for me to watch because, "But really, there is lots on your topic, but you are not …" they don't see it - they don't understand it - as being on their topic, so it may not match what they perceive - I don't know what is going on.

Michelle Yeo: So then, when you are going through that kind of process yourself - we are going to try and shift away from the students, and if you stray to how you teach the students we will kind of pull you back - so if when you are doing that kind of a search, what is your mental process? We will go through it; how do you do it?

Margy MacMillan: I think my mental process is to start with the keywords that most match what I am looking for, but to allow flexibility. So if I were doing a search on homeless teen females in Calgary, I would probably start, as a student does, with homeless teen females in Calgary, but if I didn't find anything I would then probably lop off keywords, and I would probably start by lopping off geography. So I would look at homeless teen females and see what showed up and see if there were locations where research was being done that was like Calgary, or enough like Calgary.

Michelle Yeo: So why geography? Why would you take off geography first?

Margy MacMillan: Good question! Why would I take geography off first? Because, I think in that particular topic, that would be the least critical characteristic for me, but it may not be the least critical characteristic for the student, and I have to think about that. But for me, homelessness in women, while there are different experiences of it, climatically, economically, but the experience of it would not singly differ, in essence, between Portland or Vancouver and Calgary, or between Edmonton and Calgary, or between Denver and Calgary.

Genevieve Currie: So Margy, can I just stop you there? I meant to tell you that we interrupt you as well.

Margy MacMillan: Okay?

Genevieve Currie: So I know that is not that Canadian, but we do it! So you mentioned it wasn't the best critical characteristic, geography? What did you mean by that, or how did you determine what the best critical characteristic is?

Margy MacMillan: Well, and I think that is a notion of how I would approach the problem, and I think it might, to be fair on the assignment, because if the assignment was on Calgary then Calgary would be a critical characteristic. But I think if I am thinking in terms of the projects that I see it is more about the topic; it is more about homelessness, or issues of municipal governments using social media or that type of thing, than it is particularly bounded by a city. I would have to think about that because if the students think Calgary is a critical characteristic, who am I to really second guess that? And do I … and I trying to move them off the wrong characteristic, which is interesting.

Genevieve Currie: And how did you determine that was the correct characteristic in your work?

Margy MacMillan: Some of that is just experience with a multitude of topics and my experience with working with the faculty who design research paper assignments is that it is rarely bounded by place. For most of the work that I do it is most likely to be bounded by topic, and so from my experience, probably, that, the topic, homelessness and perhaps the population, are the more critical characteristics than where that occurs.

Michelle Yeo: So do you have a hierarchy? You gave us four different things, so homelessness, teens, women; Calgary. Do those … are you ranking those, or making concentric circles, or how do you think about that?

Margy MacMillan: I probably am ranking them and it … doing this kind of work in isolation of actually having a kind of actual assignment in front of me, but the typical research question I would have, I would probably rank geography last, partly because there isn't a whole whack of information and a whole bunch of research studies done on Calgary, and I think that is a lot of particularly social science researches, is that we don't have the same kind of research replicated in every city or every rural area combined, so we have to, if it is a social science question, look at other factors combined than geography if we are looking at deep societal factors.

Genevieve Currie: So how did you come to the point of ranking the other three as well? It sounds like you systematically rank the areas within the topic title, or the topic subject matter, so how do you go about ranking them in general?

Margy MacMillan: Yeah. I think I would have to go from all ranking, like it is easier to go for the outliers on the edge and then go to the middle! But homelessness, for me, would be the topic because that is the issue that we are thinking of, or that I might be typically thinking off to start off research with a student. After that where is there more significant difference? Would I rank youth higher than gender? I don't know. And for me that would depend on the reference question, and I would probably do a search for both - for either. So if I wasn't getting enough on homeless young women, regardless of geography, I would probably then do homeless youth as a search, and homeless and women, or female, or gender as a search, so I would probably split those out and do those separately if I wasn't getting enough that had all three components.

[cow bell ringing]

[laughter]

David Pace: Excuse the bell, but I was told to do it! I let this run for a while because I thought it was going so well and giving you a sense of what this looks like. So just a couple of comments and then get any questions you have, and then let them go back and continue for a little bit longer. At the very beginning you did a wonderful job of reassurance, and it may not have been completely clear why that was important, but in many - in this case things are going so smoothly that there is no problem - but very often people hit problems and they hit blanks. You ask, "How do you do that?" and they don't know, and that is extremely threatening to academics. We are used to knowing, and this is about your subject and what you teach, and so people can have an emotional reaction and you have got to reassure them at the beginning and then from time to time that this is what we are after, and not having an immediate answer is a good sign, this is new territory, etcetera. So you did a fine job of setting that up at the beginning so the person doesn't think they are expected to have an answer for everything. It was

a very well framed bottleneck and in some cases you won't get it that clearly; I thought probably that was clear to everybody what she was doing, what the problem was, etcetera. It was a clear statement, but sometimes you have to work with the person more to make it clear and develop it. You did a very nice thing - I think it was you, Genevieve - where you … yes, it was you. You read back, in your own words, what the bottleneck was. You got confirmation, you got a little bit deeper, and then you said it again so everybody was on the same page, everybody knew what this problem was. The exploration of categories I thought was great, we are getting closer, we have gotten deeper and you see there is probably a long path here, but we have made some progress in terms of what it is you have to show students how to do. But along the way there will be maybe little doorways that we pass that we don't open right then, but it is good to remember them. Things that get mentioned that you don't bring up yet, you don't explore more because it is not time for them right now, but maybe worth it. At one point you made a comment - in fact two points you made a comment - about the "student's assignment" and it is clear you do something to move from the assignment to the task that has to be done. So later on in the interview, if I was doing this, I would go back and say, "When an assignment is put in front of you, what do you with it? And what does the student need to do with it?" So is it kind of clear the process we are talking about here? Comments? Thoughts? Reactions? Things you saw? Questions you thought that might have been asked that weren't? Things that you weren't sure about why they did what they did?

Question/Comment: I am kind of curious, this is more of a question, and you asked early on [inaudible 0:18:12.7] so is the process for [inaudible 0:18:21.1] you talked about the concept, you know, that it didn't matter if it was Calgary or here, but then so I just wonder [inaudible 0:18:38.1]?

David Pace: Sure. Let me just say what I think you are about here and then you can tell me: the point is, is you want the student to learn how to do it themselves, so you are helping them but you need to let them learn how to replicate this process, and that unless you really understand what the process is yourself and don't just do it for them, they are not going to be able to do it again. Is that the core of this? So the particular content - Calgary, etcetera - is not the point here … well, it is the point because the student has to write the paper and you have to help them, but I think you have a deeper agenda here, which is to have them internalize the kinds of steps that you would do for a search so for the rest of their life they don't have to come back to you and do this. Is that it?

Question/Comment: Yeah, yeah, I mean it is [inaudible 0:19:29.7], right?

David Pace: Yes, now …

Question/Comment: [inaudible 0:19:35.3]

David Pace: Absolutely. Now, she has got a situation, she is helping this student, so you have to deal with that particular content, but the bigger learning is not about that particular topic, but giving them a model, eventually. We are not trying to solve the problem and teach it yet, we are just trying to find out what has to be taught, but you are setting yourself up to think the next time I deal with a student like this what are the steps that I need to show them to do so that they can replicate the process?

Question/Comment: Yes, that is it, exactly.

David Pace: Okay, other comments or questions? Yes, back there?

Question/Comment: [inaudible 0:20:12.2] because for me if someone is not answering I see that the question is [inaudible 0:20:22.9] and you are asking about the question and the relationship with her being a librarian [inaudible 0:20:28.5] in the whole interview going the direction of how somebody might [inaudible 0:20:36.5] I don't know whether it is a [inaudible 0:20:46.6] question, because if you can't do this [inaudible 0:20:54.6] question mean when I am reading it, or are you asking the other question of how [inaudible 0:21:09.6].

David Pace: Yes, that is exactly right. Now it is more complicated than that in a certain sense. There may be things that you as a librarian do that you are not expecting a student to ever replicate. Yeah. But you know, there are things that you, as a professional do, that aren't relevant to what you are teaching the student, but some part - and I think it was pretty clear here - some part of what you do, you want the students to be able to do - maybe not everything. So until you know what it is that you do, you can't teach them that thing - is this answering your question? Yeah? Okay. Sally?

Question/Comment: [*Sally Haney*] [inaudible 0:21:52.8] had quite a good command of her bottleneck and was able to share [inaudible 0:22:00.5], but let me just say I don't have near the handle on what the problem is. So the question I would have for then is [inaudible 0:22:08.3] not upset, but [inaudible 0:22:11.7] what is a story I can use, what is [inaudible 0:22:22.8]. So my question is for anybody up there, what are some examples of where you had really bright subject experts crumple? So in terms of why did they crumple and how did they crumple, and then how did they punch through? Maybe one example, how did they punch through and maybe reach some kind of epiphany as a result of being probed in this way?

David Pace: Do you have any input on that?

Genevieve Currie: I have had faculty who had gotten mad during the process, and kept saying, "You keep asking me that! Why are you asking me that?" or very, like, upset and wanting the interview [over] like, "Are we done yet? Are we done? Isn't this over yet?" So I think we then try and reassure them that this is normal and we actually almost want you to get there so you are questioning almost how you are doing things so you are thinking about it again because it has largely been unconscious and you are making it conscious again. So there is resistance, for sure, Sally, about, "Well, you just asked me that. How often are we going to go around and around on something?" but then they seem to, like at the end even, reflect back, or when we see them later - because we often have follow up interviews later - then they reflect back that, "Oh yeah, I just had to think about that and that made a lot of sense and now I can really articulate those steps in my head about how I articulate that knowledge.

Michelle Yeo: Sometimes the real insights don't come during the interview; they come later. I think that is really critical and maybe important to share with people, and for me it is a matter of kind of just sticking with it, like reassuring them that this is productive - it doesn't feel productive but we can see that it is - and we are going to just hang in there for a while and keep going. And yeah, I mean I remember your interview very well and I would not have described it that way at all, right?

Question/Comment: [*Sally Haney*] Well I felt like kind of an idiot by the end of it!

David Pace: And it is funny for me to hear that having seen the results of your interview, that you came up with some really interesting things along the way! This is a metaphor that is limited, like all metaphors, but it is a bit like psychotherapy, you know? You are establishing a relationship with

someone - this is an art form. You have to establish a personal relationship, and you have to be constantly reading them, and when have you gone a little bit too far? When are they getting so far out of their comfort zone that they may bolt? And then you pull back a little bit and you circle back and you find your way back to that question again in a little bit of a different way. It is all about personal relationship here; this is not an abstract intellectual exercise - I think when people try and do that it doesn't work. This is a very easy one, I mean you are … well, by the way, this is very comfortable for me because I often do this in workshops, where I just say, "A volunteer?" and there is no net, you know? Sometimes you get somebody who just is blocked, who just will not go into a zone that is threatening to them, who will not admit they have any ignorance, who will say the same thing over and over again, or they will get angry. People have to make themselves a little bit vulnerable here and it can be painful, and that is why what you did at the beginning was so important and you often have to come back to it, or laugh and say, "Yeah, it is really hard, isn't it?" or, "I had trouble …" or, "Let's look at it from a little bit of a different angle." Relax, pull back the pressure and do it again, because everybody is not as aware already of the things they are doing as Margy is. The first interview we did was actually a failure because the person had actually be exposed to this a long time ago - a little bit - and he had thought about it and we asked him the question and he just explained it all to us, and that was it! It didn't happen again, really. But I just wanted to respond to your question - your earlier question - of example. The person that you watched up here yesterday - my colleague in History - the little excerpts you saw were over a long period of time and she chose to stay with it, but she keeps saying, "I can't get it," and she even hits her head when she finally gets something she is not seeing … she knows she is not seeing it, it frustrates her, but she is seeing it as something she needs to do and that is the problem, if people see it as just a nuisance, or, "That is the students' problem," then it is not so good. Should we continue a little bit more and then come back? Is that good to everybody? No really pressing questions right now? Okay, well let's see a little bit more.

Genevieve Currie: So Margy, just to touch base with you and make sure you are doing okay: are the questions okay?

Margy MacMillan: Yep.

Genevieve Currie: Okay, so if we could just go back to what we were talking about - I know you were talking about ranking - and you were saying how you try and put things together in categories, several words together when you are doing your search? Is that correct?

Margy MacMillan: Yes. Yep, so I was … how I determine what words I vote off the island, if I am doing a search, I will pair together and when it is not going to help to continue to look for all three keywords, and that is usually a function of the results will tell you if there is anything there. And then to divide it up, there may be information about homelessness and youth, or information about homeless women that we can then apply.

Michelle Yeo: So if I can stop you there, you said the results will tell you if it has been productive or not? So what … how do you know htat? What do the results tell you? Is it a quantity, like I found a hundred things so now I know it is good?

Margy MacMillan: No, no, it is not a quantity it is more a quality, and to some extend the depth. So if I am seeing - and I typically search in Google Scholar, I work with students who are searching across disciplines and I find Google Scholar is better for that than most other things - and so it is … because you

get the little excerpt where your keywords are, and because Google ranks results, if the … if I am seeing something on the first couple of pages - and I do look at the second page of results, and the third sometimes - if I am seeing phrasing in those excerpts that I can see where my keywords are appearing in fairly close proximity, so it s not that I am only seeing the word 'homelessness' here, and the word 'women' once in the excerpt, if I am seeing them repeated, if I am seeing them closer together, so it is 'homeless women' then I might think I am onto something, and depending on the content of those results as well. If it looks like, from the title of the results and from the excerpt I am getting, that these are studies that will address the aspects of my topic that I need to address then I will know. Wow, it is hard to say how I know what I know; it is kind of like art, right? I will know it when I see it.

Michelle Yeo: So you used that phrase "I know when I am onto something" and this is actually a phrase we often hear in the decoding interviews, you know, that there is a pausing and then, "I know I am onto something," and it is that moment we are trying to understand, what it feels like or what it looks like. So you talked about words or you are seeing words close together, so there is proximity, there is frequency, and what else is there?

Margy MacMillan: Whether it is in the title or not - so a lot of surface features. There is also - and it goes by in a flash, right? But when I look at a citation on the screen I am seeing the journal that it is in, I am seeing the year that it is, I am seeing the title, and in some fields I see authors that I recognize - but not in all - so with that flash assessment of, "Yeah, that is a good and useful piece of work."

Michelle Yeo: And you can do that even if you don't know the field?

Margy MacMillan: To some extent, yes, partly because I am a fairly decent generalist. I can see if it is a productive paper to look at, not necessarily if it would end up in the student's final bibliography, but …

Genevieve Currie: Can I just ask you a question there? What does a productive paper look like? What do you mean by that?

Margy MacMillan: I knew you were going to ask me that!

[laughter]

Margy MacMillan: And it is funny, as I was saying that I was thinking that the other filter I have, if I am working with a student, which is slightly different than if I am searching for myself, is readability. So if that title states fairly clearly something that I can recognize as being useful to a student paper on homeless young women, whether or not they are in Calgary, is the word 'homeless' in the title, or the word 'homelessness' or a cognate of the word 'homelessness' in the title; so it is not just the word, but it is a function and a synonym of it - looking for similar words. And seeing if the title is a fairly clear statement, because not all academic titles are - news, I know! But to see if that … if I think the title is approachable by the person that I am working with, so that is a function of the filter as well that is not part of the topic, but is part of the level. So if it is a first year student and we are looking at post-modern perspectives on the feminization of poverty as realized by homeless women in Calgary, like I am thinking that is maybe a bridge too far for the student, and so I might …

Michelle Yeo: So you are making an assessment then of appropriateness then not just on the very best information, not necessarily, but you are also thinking about level, who the person is you are working

with and the appropriateness of that information to the person? So you are making … that is another type of judgement you are making based on …

Margy MacMillan: Hubris.

[laughter]

Michelle Yeo: Okay.

Margy MacMillan: No, sorry, that is a word that occurred to me about my being in that situation!

Michelle Yeo: Yeah no, I know. So you are thinking about it based on the student's level, the course they are in …

Genevieve Currie: The professor even, it sounds like?

Margy MacMillan: To some extent. Also, with the understanding that what I am helping the student find is a way into the literature, so it is not necessarily we are working together to find you your five academic sources for your bibliography, usually. What I want, particularly when a student has come with that frustration of 'there is nothing on my topic' I want to give them a success and to say, "No. No, no, there is something. There is lots of things on your topic," and we will go and look for them together and we will process that together. So what I am looking for, especially when I am filtering on language for the student, is I want something that gives them a way in. In our discussions we will talk about that it is not necessarily going to show up in your bibliography, but you have a look at this, it will give you some keywords and you will look at the references and see where it is cited as a starting point. Often the bottleneck is such for the students that they think their topic is bad because there is nothing there, or it is stupid because nobody scholarly is writing on it, and therefore they are stupid. So there is so emotive stuff as well, and so part of the searching and part of the filtering, certainly for language level, or content level is to build a bridge.

Michelle Yeo: Okay, so there is two big ideas there that I want to … I don't want to lose them. One of them is about two dimensionality versus three dimensionality. So the way that you describe the students going about it when they are searching for something, it sounds very linear to me: I have a topic, I have keywords, I am going to put them in and I want you to show me the right way, so do I put quotations around them or not? Do I put them in a string or not? And then Google will magically spit out the things I need for my references. What you are describing is an entirely different way of understanding information, which sounds to me much more ... I would describe it as more three dimensional. Is that … would you say that is fair? Do you know what I mean by that?

Margy MacMillan: If I could restate that I would say rather than three dimensional I would say circular and recursive, which may be similar to what you are saying. You are right, I think part of it is how we teach students generally, our worksheets are fairly linear! Do this, and then do this, and then write your paper. We know that is not how it actually goes. What I try and show them and they see my process as I work with them, is try something, if it doesn't work try something else; if it doesn't work … so try something, have a look at the results and what are the results telling you that you are finding or not finding? Try something else to try and do that. So it is a recursive process more than a, "You do this, and then you get this, and then you go there." Is that what you were getting at with three dimensionality, or have I misunderstood that? And am I allowed to ask you a question?

[laughter]

Michelle Yeo: I think I was trying to get at how you are seeing a result to have multiple layers to it.

Margy MacMillan: Oh yeah. Yep?

Michelle Yeo: So you are talking about what else it connect to and that you are looking for multiple cues for whether something is an appropriate source. So the journal title is telling you something, whether or not you know the journal. The year is telling you something, the way the abstract is written is telling you something, the title is telling you something; all these things are giving you information that you are then using to make judgements on.

Margy MacMillan: Yes, that is exactly.

[cow bell ringing]

David Pace: Just a few comments and then I am going to ask question of you, if you don't mind? We hadn't talked about that. You can ask questions of me too. Can you see the process? It can go on for quite a while because all of this stuff about, "When you look at the journal I see …" every one of these has a, "How do you do that? What do you see in the journal title? What do you look for in language level to see if is appropriate?" Every one of these can be broken down into things she is doing automatically. By the way there are two situations we could be dealing with here, our first question I actually gave a partial answer which may not be right. You could also be doing this to teach library students - people who are going to be librarians - you know? In some circumstances you would be doing a lot of the same things, so there are two possibilities here - I was making an assumption that you were just dealing with the students in this case. Okay. I will read my notes real quick. Oh, there is a whole dimension here that may come up that I just want to mention that now. Imagine she develops a really clear model of the steps that a student has to do, and then figures out gret ways to model it and get the students to practice at it, and get some feedback, and assess that they are learning it and there is still a block. That could be because she missed a step that was really important, or it could also be that there is an emotional bottleneck and that was implied several times here. The students have a notion of what they are supposed to do when they do this, and the idea of it being recursive may be alien to their idea of what it is, and that make evoke an emotional response. So you may have to think about how do you bridge between the student's preconception of what one is supposed to do and what they need to do? If there is an emotional as well as a cognitive element potentially here? So at some point you might want to explore that and think about that as well. I wanted to ask the two of you, what was going on in your head? Oh, one thing I wanted to mention too Michelle, that you were doing very, very nicely, which was testing things. I think that is all, you can lead the witness sometimes, and is, "Describing this as three dimensional, is that good?" Sometimes you will help them get to the point and sometimes you will find they will say, "No" - as you did - "No, it is not that, it is this." But if you hadn't formulated that possibility you might not have articulated this, so that is okay in the process, you don't have to be… you are not a Freudian psychoanalyst a la 1940, you know? You can actually suggest something along the way. But I want to know, what kind of things were going on in your minds as you heard her responses, etcetera? How were you knowing what to ask, which is a hard question, but any thoughts about that? Can you articulate that right now on the spot? If you can't we can think about that later.

Genevieve Currie: When she said, 'it is a way into the literature' I wrote that down, because I was going to ask her, what do you mean by 'way into the literature'? Because for her that seemed to be sort of a seminal statement where she was putting things together, and it was beyond the assignment and it was to help students get their way into the literature. So that is what I would have asked, David, to have more understanding of what that is for her. And then when she also said, 'the assignment doesn't go as it is supposed to' or it is not that linear process, to ask her then, well, "How does it go?" and where did she learn that it doesn't go A, B, C, D, E, F? So how has she navigated through that herself? What has that taught her?

David Pace: So you have kind of your own program running about the words she is saying and saying, "Wait a minute, that doesn't seen to operate." Michelle, was that pretty much the same?

Michelle Yeo: Well no, I think that there are a couple things that I tend to cue into. So one is where the person does seem to pause and think, oh, you know, they get a little stuck or they hadn't thought about it in that way before. Then I think that is a cue for me to go, that is a place to run it down a little bit more. Also what I find is I do, as people are talking, I start to get sort of a visual picture of something, either an image or I can imagine the way she was describing the results screen and those highlighted key words and I could envision what she was talking about, and then I try to make that more visible, or see if my picture in my mind is what she means to say. Yeah.

David Pace: There are a lot of different style and we kind of started with this. I operate somewhat like you, I think, I look for things of what I think of as black boxes, things that are there - phrases and such - that aren't actually being broken down into the parts. Visualization is not one I have heard before and I think it is very powerful. My colleague, Joan Middendorf always likes to imagine she is doing the task and if she imagines there are things that she doesn't understand how to do yet then she asks. So there are different styles for this and you develop your own. You go ahead - you had a comment?

Question/Comment: [*Brett McCollum*] Yeah, related that Michelle was saying, the idea of being able to visualize what Margy was talking about, and that is easier for us because many of us have done a search through Google Scholar, but how do you tackle it when the activity the interviewee is talking about is something you don't understand yourself as an interviewer?

Michelle Yeo: And well, that happens quite frequently.

Genevieve Currie: It does.

Michelle Yeo: Quite frequently, and we are sometimes feeling like the students, or like we are not grasping what they are saying, and that is often where people get quite frustrated, because we feel like six year olds trying to understand a complicated thing. So that is where we will sometimes get people to draw things on the whiteboard, or to explain it a different way, and I still do find through that process something will start to come to my mind as far as what they are describing, a pathway or something like that, but usually it is wrong, what I am visualizing, so it is testing. I have always wondered if that was okay to do because was I putting my own judgement or interpretation on the person? But I do find it can lead to them describing it, if they are given something to work with and to be able to say, "No, that is not right, it is more like this," and then I try it again and, "No, that is still not right, it is more like this." Yeah.

Question/Comment: [Brett McCollum] So a lot of it is, then, a conversation with the interviewee as you try to have them teach you not just what they are doing, but in some ways teach you what the problem is, what the task is, and as you begin to understand what the task is, you find the questions to ask them?

Michelle Yeo: Yes, but we also want to avoid it turning into a classroom lecture, and people slip into that as well, so … so it is … I don't know, David, maybe you have more to explain about that, but there is a point where you realize they are just slipping into their first-year lecture and that is not going to get us anywhere either.

David Pace: There is two traps. You notice we have two interviewers and there is a reason for that because it requires a lot of concentration and you can kind of fuzz out from time to time. There are two traps for the interviewer: one is subject matter that is really interesting. People love their subject matter and they start talking about it and you can let them do it for a little bit because it kind of … you may learn something about the subject, but pretty soon you have gone down the rabbit hole and you are talking about nuclear physics or something. The other trap is trying to fix things. This is not the stage of coming up with a solution, this is the stage of finding out what the problem is. My colleague, Leah Shopkow says, "Just walk around and poke it with a stick and see what happens," so you can get fascinated with this question of, "Oh, how can we teach this?" and the people you work with are all dedicated teachers and they all want to do that. It is so interesting, there are two people up here and there is usually one of them that goes, "Oh wait, wait, no, we are supposed to be talking about what the steps are." So it is a complicated job and it is hard to do many of these in a short period of time because it requires great, great concentration. I always look for what is missing; what is missing in the story I am hearing? What is not being explained? A lot of … oh, by the way, one other reaction that we see, and another reassurance that is important is guilt. People have been teaching for years and they suddenly get to the point where they realize there is some absolutely essential, basic step that they have never taught to their students and they are dedicated teachers and they feel awful. You just have to reassure them, "Yes, we have all done that, this is new, you are contributing to knowledge, we are moving forward, you know, we are leaving the dark ages and moving into enlightenment," and all that, and that is another kind of problem that involves reassurance. Should we have them …

Michelle Yeo: I think there is one more.

David Pace: Oh yes, I was going to suggest a minute to talk at the tables, but you want have a … let's have a couple more questions and talk at your tables and then we will come back, how about that? Does that seem okay? So is there a question over here somewhere? Yes?

Question/Comment: I just wanted to follow up with something you were questioning about whether there is evidence someone in the discipline of the decoder is from in regards to the person being decoded …

David Pace: Oh yes, I should have said something, sorry! Thank you so much for that question. We really try to avoid having two people up here interviewing that are in the same discipline because people in the same discipline have shorthands, they accept certain things and it is really almost essential, although you can sometimes do it. Historians, we have done enough of it ourselves we can distance ourselves, but generally you want someone out of the discipline, you know, being at least one of the interviewers, so you don't fall into those traps. So thank you, that is a great and really important question we should have mentioned earlier. There was one … oh sorry, go ahead?

Question/Comment: [inaudible 0:48:33.5] involve one of the interviewers in a related discipline to avoid that frustration that people have?

David Pace: You know, in many ways this interview process is about embracing ignorance and using it, that ignorance is a tool here, and knowledge is the problem, in certain ways, since you are trying to take knowledge apart. So what you described is often quite useful, you know, that you really don't know what they are talking about, you don't understand the subject, but neither do the students, so your ignorance is useful until they can explain it to you. So a distance from the subject … you know, sometimes it can be useful to have a general knowledge of what is happening, but too much detailed knowledge can get in the way unless you have been doing this a lot and you have really trained yourself to not just repeat what everybody says. Is that adequate?

Michelle Yeo: Can I just add to that? I think if you … even if you have one of the interviewers in a related discipline, the temptation is for that person to jump in and rescue the interviewee, and say, "Oh, what you mean to say is this," or, "The way I think about it is that," and so you actually want two people from two different, but related, disciplines that are equally struggling in different ways with what is being said, I think.

David Pace: It is something Michelle said before which is really important, I think, and that this is an artform, and suggesting something to the person who is being interviewed sometimes is a good idea and sometimes is a bad idea, and you just got to feel for it and then critique yourself afterwards and improve your practice. There is not a simple answer to that at all, I think. Did you have something else? Let me just say one things … oh yes, here?

Question/Comment: [inaudible 0:50:31.0] when she was asking her about how she thinks that the results are going in a good way or a way [inaudible 0:50:47.3] method or [inaudible 0:50:50.6] a good thing or a bad thing?

David Pace: I thought it was a good one, personally - the rest of you can judge - but I thought that was a crucial question you dealt with. I don't remember the details exactly, but you raised the question of was this a qualitative or quantitative judgement? I thought that was a really important thing to know; is it just you have seen enough, or is there some kind of judgement you are making about the quality of the examples you are seeing? And then the question would be, you know, how do you make that judgement? How do you know this is useful and that, you know, even thought there is fifty example of that and there is two examples of this, what tells you that the two are more important?

Question/Comment: [inaudible 0:51:26.8] elaborate more on it?

David Pace: Yeah, just go deeper: "Tell me more. How would you make that?" The question is almost always, "How would you do that?" She said, "I am making qualitative judgements," and you say, "How do you do that? What is the criteria? How do you know that this is relevant and this is not relevant?" and then you go deeper. I just wanted to describe one very, very different kind of interview that I took part in: summer before last in Germany, did a workshop and then said, "Did anyone want to try this?" This woman said - I spoke to someone about this earlier - she said, "I have got a different kind of bottleneck and I don't know if this fits?" I said, "Let's give it a try." Her bottleneck was trying to figure out if there is a student who is sitting in the classroom - in the lecture - and sometimes is being said and she doesn't understand what it means, what should she do to find out to get it corrected? So we went

through all the steps, all the decision points, at least thirty minutes, a group of us, you know, a dozen of us, and we went through all the things students have to know and decisions they have to make at various points to know how to get an explanation of something that wasn't clear in a lecture. Do you just wait until it is clear later? Do you turn to another student and say, "Could you explain that?" Do you raise your hand and ask the faculty member at this point? How do you know whether this particular class is one in which questions are welcomed or not? What are the signs of that? Do you wait until after class? How do you frame the question? How do you know it is okay to ask in that moment? Are there office hours? How do you find out what they are? We went though all of these things and we got the student to the door at the right time during the office hours, and it was closed! And we got to the point of how does the student know whether it is okay to knock on the door or not?

Michelle Yeo: [laughs]

David Pace: And we imagined the student had gotten to that point and she just feels like, "It is not all right. The door is closed; I can't knock," and she walks away. The faculty member inside is thinking, "These students don't care. They never ask me questions." And we were appalled because we realized that none of us had ever taught our students, how do you get information when you are not understanding in the middle of class? So the coding can focus on very different kinds of things than this situation, but what it reveals is what we are not teaching and what we need to teach. So let's see, how much time have we got? Let me get my watch out. Yeah, at your tables, just about five minutes, why don't you talk about what you heard, what questions or problems you had with it, how you might use it, what is unclear, what you need to know? Just amongst yourselves for a couple of minutes. [whispers] You guys are great!

End of Audio [0:54:39.7] - Part 2

<u>**Start of Audio [0:00:00.0]**</u> **- Part 2**

David Pace: Okay, let's get back together again. We have a couple of more things to say and then I would like to hear questions and comments, and thoughts and criticisms, and all that. So … I am asking, okay. Two things that came up: one, I think is really important and this has been such an education for me because the people working at Mount Royal have taken all this directions we had not thought about and they are terribly productive. So one things they have done is pay attention to non-cognitive aspects of the process. In our original stuff we were asking, "How do you do that? What is in your mind? What were you thinking?" and they moved it into as a professional, as doing a task, doing something you have to do in this line of work, what are you feeling? What is going on in your body? So if you could just comment on what you have learned and what you do in that area, I think that is real important.

Genevieve Currie: Sure. We found particularly with things that were non-cognitive bottlenecks for people were expressing emotions when they were frustrated with something, and also we typically interviewer … the people that we were interviewing were from more practiced faculties and more practiced disciplines, and so they often started describing thing with their body, or how they came to understand things with their body, so our line of questioning was around that too: "What are you seeing when you are describing that phenomena?" or, "What is the sensation you are experiencing when you are thinking about that with your students?" So that, for my presentation this afternoon, that is some of the facts we would say of how they would describe it using their own body, the experience of their body. We often come to know the world with our bodies, particularly touch and sensation and things

like that, and so to give faculty the permission to do that, especially when students can understand it that way as well.

Michelle Yeo: And it is often a way to help unpack because people will often resort to, "Well, I have been doing it for a long time." We heard Margy say a few things like that, "I have a lot of experience," or, "I have a gut feeling. I just have a gut feeling about this." So getting people to actually dig down and to describing what that means is quite useful, but quite difficult for people to do. And then a second thing that I find often comes up in the interviews which is quite productive, which I will kind of, if I get a hint of it ask about, if they can start to talk about how they live in the world differently because of the field they are in is quite useful and quite fascinating. So you hear that nurses walk around and see people differently than I do. So they are assessing people continuously, right? Same with our athletic therapist friends over there! What Margy has talked about in a previous interview and our journalist interviewees will often talk about how they are attuned to media; they consume media, or read media, think about media in an entirely different way than I do. So that then, if you can get people to start to explain that to you and the complexity of that, I think that is a place to go with students because if we can help students become more aware of the problems that are around them, or the discourses, or whatever it is, and to be more observant in their day to day lives, it is not just about this class, so that is … it is useful to go down that road.

David Pace: Also there is often patterns that you find in certain disciplines and you can, again, lead the witness with certain types of questions. For example, there are fields that are highly visual. History is not one of them, we don't look at things. But there are fields in which the basic reasoning is visual, but that is so automatic to instructors they are not telling students and they may assume students have pictures in their minds. And as far as one great case when Joan Middendorf was working with a person in biology and was not getting it, you know, there was something missing here and he couldn't figure out what it was, and she couldn't, and she started asking, "Are you seeing pictures in your mind?" because she knew that was a common thing that was being left out. He said, "Yes," but they still weren't getting there - this was about the expression of DNA - and what they both came to realize was he had a cartoon running in his mind; he had four dimensional pictures. He had objects in space moving in time in complicated ways. That was not something he was teaching students to do. And when he looked at the textbook there is a two-dimensional picture there, which is not just irrelevant, it is worse that irrelevant, it is teaching them to think about things another way. By the way, he came up with a very nice solution which he acted out in the Freshman Learning Project with the other fellows. He just gave us, he produced this kind of strip along the wall, the four letters, and he gave everybody an instruction - and there were several different kinds of instructions. He said, "Go do this," and mine said, "Find this sequence and put your hand on it." Somebody else's said, "Find somebody with their hand on it and take their elbow and hold it this way." And what we saw was, in four dimensions, a group of us, nobody knowing the full picture, produced a result, but only after we realized that was what was going on in his head. So asking that question can be very useful. Yeah, I think it is time to get some of your thoughts and comments and questions. Yeah?

Question/Comment: So I am wondering how you get across, in this situation, the idea that the whole was bigger than the sum of the parts? So I am thinking about my own practice in classroom engagement, right? So when I am teaching I am thinking in terms of how do I teach them? What do I do in the classroom to engage the classroom? When I think about it for myself, the way I describe it is there is like a magic that happens in the classroom where everything is clicking and the kids are thinking, you

know, ideas are flowing back and forth. I could break that down. I am thinking about, you know, what you said about articles, and titles and all these different things, and I guess I am looking at student body language, are they moving forward and then back? Are the closed off? I am listening to their tone of voice and looking to see if I can see that sparkle in their eyes …

David Pace: Excuse me. I should have handed this to you. Are you okay without it?

Question/Comment: I will use my teacher voice.

David Pace: We don't have enough microphones to really do that, so excuse me for interrupting, but you are doing great here.

Question/Comment: My question then is, none of those classroom engagement, like none of them … all those things are part of it, but isolating them out makes it less than it is, and I don't know how to describe that in a way that is … I don't know, it is all of that, but all of them together becomes something more than that.

David Pace: Yeah. He is saying that the whole is greater than the sum of the parts. Just adding up the observations that he makes at the end of a class to determine whether or not it has been successful, he can pay attention to body languge, etcetera, but there is something happening there that is the connection of all the elements that is more powerful. And do you lose something by trying to isolate the pieces? Thoughts?

Michelle Yeo: Well to me it relates to what Genevieve was talking about earlier. So this is an example of a thing to do a decoding interview on, and where there is a kind of danger, I think, in making things very technical when there is a greater thing you are trying to get to. But through the process of the interview we would try and get past just the visual clues you are using to really thinking about what is that feeling? I know exactly what you mean, so what is that? How do you identify it? Do you feel it physically somehow? And we could spend a lot of time on that, and hopefully - what we have seen anyways - is that can move you to a better understanding of what is really is, and how you know - how you know what you know - and that just comes to you like a gestalt kind of. Yeah.

David Pace: But we are certainly not ruling out that gut feeling as a bit of information that is useful to have. The only problem is we have a tradition of an awful lot of people giving big lectures and judging the success of the lecture by the facial expressions of the people in the first row.

[laughter]

David Pace: And they are getting a gut reaction that is not very useful. You are describing something else. So talking about that reaction and the process might be a good opportunity to think and to re-evaluate, "Am I actually getting information that is useful or not?" Which is not to say that you are not, but it gave you a chance to think about it, "What am I seeing?" There is a wonderful title of a book that I read years ago, 'The Structure of Magic'. The response to a class is a magical one, but it has a structure, there is something going on here as well and it may be useful to know that structure. But I think that is something that you all have helped me recognize that we were being too narrowly cognitive and that the physiological responses were also important. Other thoughts? Questions? Things that came up at your table? Oh yes?

Question/Comment: [inaudible 0:10:03.8] played out, questions were asked, and I think very much it was impactful. So I am just kind of curious, as you are going through questions in your assessment [inaudible 0:10:13.7] done? Do you say, "Okay …" and you say there is something that happens after and there are periods of uncomfortableness and like how do you say, "That was great for today. Here is what I am thinking"?

David Pace: We were going to plan that question, so … the question was, how do you know when it is done? How do you know when it is finished? What thoughts do you have?

Genevieve Currie: One thing, for sure is when people are getting really fatigued. Usually these interviews go on for an hour and a half to two hours sometimes, so to read those cues about that, or if you think really there is nothing new coming up, and to give the time for the participant to know … like we talk to them about, "We are going to meet with you again," and we write down some of the questions they asked or we asked, and we give that to them so they can look at it later, and then we meet with them again, like in a week or two weeks and discuss that. What else would you say Michelle?

Michelle Yeo: Yeah, there is a kind of … it …there is a feel, just kind of a fatigue that happens, for sure. Sometimes if the person has been standing up at the front of the whiteboard they will sit down and close their books …

[laughter]

Michelle Yeo: Just kind of like they are really done! And we get … and we are tired too, so maybe I can't think of anymore questions to ask, I can't think of anymore productive ways to go so we just agree to pause it. And we also, in … with one particular group we asked them for a written reflection as well, which was quite useful, just a set of written questions and in that case - I keep gesturing over to the athletic therapists where we worked on this as a curriculum project, or part of a curriculum project - and the transcripts were reviewed by the group as well, as a follow-up, so that is a productive way to go as well to further things along.

Question/Comment: [*Margy McMillan*] And I would just say, as an interviewee my process isn't going to stop with this; I am going to be thinking about this for days! And it is really productive. We did a practice interview with a different question and I am still processing a lot of that material and thinking about, "No, I need to go deeper on particular questions with myself," so I am intrigued by the self-decoding cards that you mentioned last night, David, because I might need to spend a little time in a quiet place and go through these. It is an … it has been an incredibly generative experience for me and it really provokes some interesting ideas about epistemology and teaching, and how I can do it better. So the process around it, and the writing it up and all that is one thing that goes in a different way, but the results for the interviewee may follow all kinds of different paths.

David Pace: Just to follow up one more thing on that - or two more things. First, I think when we originally did these they were a one occasion event. What is happening here is it being embedded in the community, which means when the interview is over it is not necessarily over, people will be meeting again, but also that they are doing - I think Janice introduced this, wherever you are … she is over there - I need the self-study that someone writes up something and then shares it with somebody else, that it continues after some time and you can go deeper. You have friends who say, "I got stuck here. Can you help me past this point? It still bothers me." The other thing is the interview is over when you have got

the things so basic that any human with the mental capacity to be accepted at university should be able to do this. It is like the little kid who asks, "Why? Why? Why? Why? Why?" and we keep asking, "How do you do that? How do you do that? How do you do that?" and eventually you get to the point where it is like, "Yeah, anybody can do that. We don't need to cut that down anymore." So sometimes you get exhausted, and sometimes you exhaust the questions and it is all on the table, it is there. You think it is all on the table and then you teach it, test it and if you don't get the results one of the things you do is go back and say, "Did we miss a piece?" and you do it again. A question here? Yes?

Question/Comment: I am curious to know what happens when you get to the point of fatigue but a lightbulb is going off and you are really happy that you found out something at that moment?

Genevieve Currie: We have had people who had revelations and they have been quite excited, but also the guilt feeling that, "Oh, why didn't I know this before and I wish I had known this before because I have been teaching in one way for so long."

Michelle Yeo: My experience is it is much more often after. I don't know whether … I don't say too much about this to people, but it is quite frequent that people walk out visibly frustrated, and so you have to be prepared about that as an interviewer, that it feels like people are kind of agitated almost and they are still thinking so much when they leave. So it is usually later that people will stop me in the hallway and say, "I woke up the next night with a revelation." It usually happens later.

David Pace: Also if you have the resources to actually do transcripts - written transcripts - of the interview, that can be an occasion for an 'ah-ha' explosion later one when someone has slept over night and reads it and says, "Oh! That is what I am missing. That is the implication of what I said," etcetera.

Michelle Yeo: We do have people here who have gone through the process, and I don't know if any of them want to share anything, or any thoughts on that?

David Pace: Sure. There are a number of people who have done it here? Any experiences you would like to share? Janice? Now you will have to speak loudly, I can't pass the mic to you. Do you want to come up?

Question/Comment: [*Janice Miller-Young*] No, not really! So I was interviewed as part of our initial process when we were sort of practicing the interview among ourselves, and you were both there and both know it was really frustrating. Engineering is my background, and because nobody else was an engineer that was interviewing me it felt like they were asking me these so grade seven questions, you know? Like, "How do you do this?" or, "How do you know that?" and I was like, students are learning this in grade seven, I should not have to teach them this, they should know this! And so that part was really frustrating and it felt like we were going too low, almost, and we weren't at the level I was trying to teach the students about. Of course, a couple of days …no, really … I don't know how long it was, but eventually, after having that period of frustration and not really sure if it was a productive interview or not, eventually came around and felt, "Oh no, I am actually feeling how forces work in my head when I am in an elevator. I feel, you know, I feel the force; I feel heavier when I go up and I feel lighter when I go down, and oh, I have never actually explained that to my students before when we talk about forces and acceleration!" So it was really quite revealing and surprising to me. Yeah, it is eye-opening and you do feel that guilt because it is so obvious in the end, like why I have a not talked about this before? So overall a very valuable experience, but it does and did take me a long time, actually, to get to that place.

David Pace: Any others? The other person? Yes? Janice? I think it is a question for Janice. Janice, we may need you back here! Okay.

Question/Comment: Yes, thank you for sharing. Can you tell me one change [inaudible 0:18:39.9]

David Pace: So the question is was there one change you implemented in your classroom based on what you got?

Question/Comment: [*Janice Miller-Young*] Yes, so it was talking about those feelings and connecting more the equations to real, not just real-world examples because I think I always did that, but real-world feelings. Yeah, so you pull on a rope and you feel heavier when you trying [inaudible 0:19:08.8] and I never had that, never made that actual connection with a person's actual lived experience of the concepts that they were learning. I always did [inaudible 0:19:21.7] and that kind of stuff and explained those - explained the concept through those - but never the actual physical experience of the person. As I said, going through the process helped you see and make those changes.

David Pace: Last summer in a workshop in Germany one of my colleagues - a German colleague - who has done some of this work, we worked with a physicist in a workshop and she said afterwards - he was describing a plane and kind of the forces - and he said she knew we had him and we were getting somewhere when he stuck his arms out because it was a physiological - he was now the plane and that was happening! But he was not actually teaching the students that you had to be the plane there for the moment. We are getting to the end of time, but any other questions or comments, or thoughts? Anything else?

Michelle Yeo: David, can you speak about the two interviewer styles?

David Pace: Oh yes, yes, they had very different styles here and I thought that was very effective. Another reason why I hadn't thought of it before is because they have two interviewers, but you were a little more supportive, a little more dealing with the emotional aspect, and you were more cognitive and a little more challenging. Jokingly, there was the good cop and the bad cop, which is a vast exaggeration because they both were operating very closely together, but there was a little bit of that which I thought was an wonderful combination.

Question/Comment: How important is the relationship between the one that is acting cognitive and the one that is more emotional?

David Pace: Yeah, how important is the marriage of the cognitive and the emotional? Yeah, I think for this to work you absolutely have to have both to some degree. I think a purely cognitive interview with someone who is deadpan and makes no relationship to the interviewee is relatively unlikely to get very far. If it is entirely about emotional connection and we are all feeling great and nobody gets challenged you probably won't get very far either. Having the two roles in two different people is very effective, or you can also, with one person, change roles too. I think both of those roles really need to be there for the full effect to occur. Anything you want to add to that? I think we have time for one more comment or question. Yes?

Question/Comment: So this sort of comes out of our discussion last night around Truth and Reconciliation and ways of knowing and acknowledging all that stuff. We were talking about how the next step for decoding, is the decoding allows the opportunity to allow is to think about, "How do I know

these things?" and, "Where do they come from? What assumptions am I making in my own world, my own discipline, our own epistemological way of seeing the world?" But then being able to question and challenge and think about other ways of knowing and ways of taking it. So kind of like Decoding 2.0 is challenging those ways of knowing and seeing other potential opportunities.

David Pace: That is right. We have even imagined it may affect the way we do our research because we never asked these questions, we just did it; it has been a tradition we have been passing on for a very long time. One thing that we didn't mention that we do need to mention is, as I say, it is a community but we do have a website and a listserv, and we are trying to make it more interactive - we are working on that - and we will send out the URL to all of you. We hope you will join us and be a part of it, and add to it and give us examples of what you are doing, ideas, thoughts, questions. One person here just got a gig in another country - somebody said, "I want someone to speak on this," and the person matched perfectly - and so we are doing all that kind of thing to help spread this work, but also to help people see what other people are doing. I guess my final comment - you may have some things you need to say - my final comment, besides thank you … oh, we have to have a hand! Let's have a hand please!

[applause]

David Pace: I guess my final charge, and it just occurred to me a moment ago, now you know what decoding is, go out and change it! Okay.

[applause]

Brett McCollum: So over the coffee break our speakers will be here at the front, so if you have additional questions we invite you to come up. Coffee will last until 2:30, and then we invite you to head to your sessions. If you are interested in doing more with decoding we encourage you to try and attempt it with your colleagues in your home department. If you want to contact an experience decoder and do an decoding session over Skype, you know, there is an opportunity you can actually film it and interact with someone even if you don't have experience people back home. Finally, we are inviting the undergraduate students to join us at the front; we are going to take a photo of them before we start losing people. And oh yes, I was going to mention it tomorrow, but I will mention it again today. At the tabletops you have got a bookmark, and next year we won't be having - the bad news - we won't be having our symposium in November, and that is because, good news, we are hosting the international symposium on the scholarship of teaching and learning in Calgary in October, and so we are hoping all of you will come, bring your friends and join us in Calgary downtown at the Telus Convention Centre as we explore - continue to explore - the scholarship of teaching and learning as a now larger international community. So thank you once again!

[applause]

End of Audio [0:25:27.2] - Part 2