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Decision-Making Process between an Instructional Designer and Subject Matter Expert to Design TVET Instruction Online
Presenters: Joshua Hill, Camellia Hill, and Jessica DeMolder
Host: Tim Carson

TIM CARSON:
This is our last session of the conference. And really looking forward to this one. We have Camellia Hill and Joshua Hill back with us in this session. It's called the Decision-Making Process Between an Instructional Designer and Subject Matter Expert to Design TVET Instruction Online. When I first saw that, I immediately thought this is going to be a really cool sitcom. And it just might be. So for those of us who may not have seen Camellia and Joshua yesterday, Camellia is an innovative educator with over a decade of educational involvement. She's been employed as a teacher in the Ukraine, Canada, the Dominican Republic, Brazil, and now in the United States of America. Camellia has a combined degree in kinesiology and education from the University of Lethbridge, as well as a master's degree in Portuguese pedagogy, which just blows my mind from Brigham Young University. And she is presently a graduate student in instructional psychology and technology at BYU. Josh Joshua. Josh. Sure. Joshua is an instructor in the Electrical Apprenticeship Program at Lethbridge College. He's also taught at Vancouver Career College and Sprott Shaw College in similar programs. His love for learning and pedagogical development runs deep. He is an MA graduate with a degree in psychology. Please welcome along with me, Camellia and Joshua. Yeah.

JOSHUA HILL:
Alright. So yeah. And then we have Jessica with this as well. So Jessica is also an instructional designer. She's completing her, she's a doctoral candidate at Brigham Young University and comes with a wide range, over a decade of experience in instructional design. Yeah, so we're excited to present to you today and to chat with you on what this experience can look like, what designing dominant online course can look like. And what that, some little details that would fall into what this course might shape into, especially for those of us who have a lot of hands-on content, right? A lot of things that we need to see physically done in our different fields of training. And so how can we evaluate those types of things and what type of design process we would go through to complete this task. So this is our overview of what we're going to get into today. We're going to start. We've got a Q&A with the instructional designers, Camellia and Jessica, and then I am the content expert. Smiles. So then we're going to go through this decisions. We have the Jamboard, so Jamboard from yesterday, from Camellia and Jessica's presentation. Same Jamboard. So if you can cue that up, pull that up when we get to that point, then we'll be able to see what you put in there, what questions you have, and also use that you can see the URL here. Use this for, as we're going through this process, think about how this can apply to your specific fields. And some, maybe some problems, some critiques, and some ideas of ways that we can potentially move this forward in your specific domain. Camellia, did I miss anything? Jessica, did I miss anything? Beautiful. Perfect. Alright. So next slide at the end, roaming mic. Be prepared. It'll roam.

When as an electrical instructor, and I'm trying to make sure that my students are going to be engaging with the content. The first question that popped into my mind when it says, let's move this online is how do I keep students engaged with online lectures? So can we just get like, how would I go about doing these different engagement activities?

CAMELLIA:
So I'll initiate and then Jessica. But initially I think we think of frameworks and as you spoke to us, we imagined we were with you in the flesh yesterday. We spoke to different frameworks. We sit in that types of interaction framework where we can interact with content, interact with our teacher, and interact with other learners or your customers or clients, or whomever it is in your realm. I think as educators, when we initially sit in our outcomes, we fancy to imagine what is the authentic way we can connect learners to those spaces interacted to content. So that's the material and maybe the resources or skill set your learners need to tap into interacting to you as an instructor and then interacting to the clientele or other people involved in those spaces. And so I think initially, starting with your outcomes is sitting in that framework and saying, what are the natural and normal ways we can invite learners to have interaction in those three spaces of our framework.

JESSICA DEMOLDER: And I always think this question is so fascinating, right? I think most people who want to do content online, this is their number one question. I always obviously want to think exactly what Camellia said. We need to keep their frameworks in mind. One thing that's helpful to. Sometimes it's like, well, how do you keep your learners engaged in your classroom? I think we've all been to lectures or whatever where we're not necessarily engaged. So with the same intentionality that we want to create engagement in the classroom. We do that online using the frameworks that Camellia just spoke to. So being intentionally, designing intentionally and thinking, okay, so how can I make this interactive? How can I make sure the when it's learner to content, so they're learning new content. How can I make sure that that's interactive, whether it's follow-up questions or prompts along the way? I wanted students to students, how can I make sure students communicate with other students? And how do I make sure there is a teacher presence online? So just as much as sometimes a face-to-face section can be an engaging. And we want to make sure that we design online on purpose intentionally so that it can be engaging as well.

JOSHUA:
That's fantastic. The one thing that I think about when it comes to engagement and teacher presence, so thank you for those points, is I might be. We all have our different way of instructing, right? We all have our little niches and the things that we're good at and the different things that we might not be good at. And so one thing that I can see in my department and across the two departments that I now teach in, in psychology and electrical. But focusing on electoral is that some instructors, and we've talked about this earlier in the conference, there's just not the uptake from some instructors. You can present to them this great content, this amazing way to interact with students. And they just balk at it. They're like, Well, you know, I that's going to take me time to learn, that's going to take me energy to learn. And so

what are some creative ways that you both have found to coax or coerce or encourage whatever words you may want to choose. Those more. These instructors who are struggling with getting over that first hurdle.

CAMELLIA:
Yeah, again, I said buy-in is huge and I think we see it. There's an interesting, again, there's a theory of the affordances of innovation. And what it speaks to is this idea of touch points. It's even us, think of the marketing we buy into. Initially, we need a touch time with it. So if it's a new program or a new modality or new medium to do something, it's having it tangible, having some interactivity for that person so they can see it in a personal connection way that that new space is like a valuable space. And so I think as we sit in some of those frameworks that speak to the touch time, speak to that ability to try it out. So for instance, you saw speak to GoReact, H5P. Out of those areas, actually offer you free trials because they know if you can play with it, if you can tap your content into it and manipulate it, you can start to see the benefit of it. I don t think it's a speech. I don't think it's somehow like you waving a banner with a massive Online Education kind of chant. What it is, is you just invite them to have it tangible, to play with it, to interact with it and see the ways that it can actually manipulate and the affordances again of that space to actually allow them again. We spoke to this yesterday, allow the humans who do what humans do best and then allow machines to do all the stuff that they do best. And that combination allows us to really split out into the affordances that technology is offering us now. I think just like Camellia said, that touch time is important, right? So If we're used to say something, maybe you that we're used to is like maybe our phones, whether we have Apple or Android and then we switch and it takes us a moment to figure it out. I think it's the same if you've never learned online or if you've never learned interactively online, it takes that time, those touch, that touch time to figure out and get used to it and get comfortable with it. And just sometimes what we do is low-stakes assessments or activities in the first few days, that just get them comfortable with it. So whether it's an introduction through GoReact, as Camellia mentioned where it's like, Okay, I'm just getting my feet wet slowly. And then we're ready to jump into some more meaningful things where it's like, okay, now it's more high-stakes, but I'm comfortable with the technology, so it's not going to freak me out so much. Same with the instructors, right, where it's like, Hey, let's try this and see if you're comfortable with this. And we have these ideas of maybe creating interactive videos or branching scenarios or whatever it is that we create that's interactive with the content and just letting both the teachers and the students, if it's new, have that touch time with it and get used to it.

JOSHUA:
Yeah, that I think is going to resound to especially with those who might be really adamant against using this type of material. Two words that stood out for me. It was free. And then that touch time piece, right? It still is going to be interactive. You're still going to have your authentic experience with your students, right? For the most part, we're preaching to the choir here, but these are some ideas that we could take with us to our cohorts, our teaching cohorts and say, Hey, you know what? I hear you that you don't want to do online, right? It's just straight up, not for you. So I'm going to show you just a cool thing or you do it at your chair, not your chair meetings, but your whatever your centre meetings look like. And so then you can present at

one of those and say, Hey, like with the Kahoot that I did yesterday, right? I used Kahoot as my medium as a presentation. And that was a surprise to some. You didn't know you could do that. And that's a small introduction, a small little way to say, Hey, here's a piece of technology that you might not know, might not be comfortable with, might be adamantly against, but can benefit you in some way, right? And so it's that show rather than tell piece. And I think that going back to what you were saying, it's inviting and then it's giving them that presence so that they know that their physical presence in front of the group is and can be equally as replicated in an online setting with the proper tools, right? And with the proper modes of technology.

CAMELLIA:
Yeah, and I think we just need to pause for a second because sometimes we don't fancy nothing of the in-person to be replicated online. Sometimes the in-person is horrible. You've sat in many in-person in the flesh courses and be like, I'm so bored, I purchased all the stuff on Amazon I did not need. You've sat in those spaces. And it's not been like a beautiful space to increase your proficiency in the content you are assigned to learn to build the skill sets. You could offer your expertise to our world. And so what I think that what we want to fancy to sit in and maybe what we'll do is we'll take just a minute and queue a video that will allow, you know, we're not comparing online to in the person. We're not trying to see if one medium is better than the other. What we're doing is we're trying to build methodologies of education as an instructor so we can offer learners deep education and blessed to us there's affordances in technology that allow us now to move outcomes to a larger scope and depth if we can understand them, to combine them beautifully. So what we'll do is maybe what we'll do is we'll queue the three M's video. As we watch this video, I want you to sit in what am I understanding about medium modality and method to better take advantages of the affordances of technology.

[VIDEO STARTS]
Have you ever listened to the violin? Oh no, not that kind of violin. This kind of violin. But the violin can sound heavenly. What makes the violin sound good or bad? Is it the instrument, the environment in which it's being played? Or is it the musician? Would you ever say violins make bad music? Or that orchestra pit sounds great without considering the role of the musicians? People do this all the time with educational technology. Someone might ask, do kids learn better with tablets or textbooks? Or is learning in an online environment better than learning in a face-to-face environment? These are bad questions because they focus on the instrument, such as the violin or the environment, such as the orchestra pit. Without considering the skill of the practitioner, the musician. To accurately talk about learning, you must understand the relationship between the three M's and how they affect the learning experience. One, the medium. The instrument like the violin, the saxophone, or the keyboard. Two. The modality. The environment in which an instrument is being used, such as an orchestra pit or a recording studio. And three. The method. The skills and techniques of the practitioner, like the abilities of the musician. In education, the medium includes the physical tools or technology used during instruction. This includes digital tools like computers, TVs, or mobile devices, but can also include non-digital tools like books, whiteboards, and pencils and paper. Modality is used in education to describe the physical learning environment. Common modalities include the

online classroom, the face-to-face classroom, and a blended classroom that combines elements of both online and face-to-face instruction. Lastly, method includes the teaching strategies or pedagogies instructors use in teaching. Some methods are very general and apply across a wide range of disciplines. This includes practices like lecturing, demonstrations, classroom discussions, group work, and much more. Other methods are specific to a particular content domain and would likely only be used when teaching a specific subject. Examples of content-specific methods include having a writer's workshop in English language arts, researching and creating mini documentaries and history. Completing scientific inquiry in biology, or using manipulatives to teach a specific concept in math. Just like the quality of music is impacted by the instrument, the environment, and the musician. A learning experience is impacted by its medium, modality, and method. Yet, research tells us that the three M's are not equal in importance. Method is the most important of the three M's. Just like a great musician can make impressive music with a poor instrument and a less than optimal environment. A great teacher can overcome low quality mediums and modalities because her methods have a direct impact on student learning. Medium and modality are still important. But they have an indirect impact on student learning because they affect the kinds of methods that a teacher can use. Method is really the big M. While medium and modality are more like little m's. So don't catch yourself asking, is online learning good or bad? Because the question focuses on the wrong end. Modality is the little m that focuses on the nature of the learning environment, whether or not the class is online. Also think twice before asking, do kids learn better with tablets? Because this question focuses on another little m, medium. The little m that focuses on the tool. These are both the wrong questions to ask because they focus only on little m's and ignore the big M that matters most. Method, a better question to ask would be, what are the students doing on the tablet? Or are the methods used by the online teacher making learning effective or ineffective? The next time you go to a concert, remember that they don't list the violin on the play bill. They list the performer. Because while the instrument or medium in the concert hall or modality matter, what matters most is the skill or method of the artist. Likewise, it is the skilled methods of the teacher that directly impacts student learning and not the physical classroom, modality or technology medium itself. So in the future, when you talk about learning, don't forget the roles of the three M's, medium, modality, and method. [VIDEO ENDS]

CAMELLIA:
Awesome, thanks so much. And yeah, basically it's just inviting us within this space. We're chatting about education. We're obviously having an influence in our chitchat about the affordances of technology. But as we do so, know that technology can blossom. It can bridge the space between the trades and vocational skill sets of a person's expertise is in your realms really shining. But it can bridge that with this technology, that'll just allow you to have a deeper which to have you more interactive, to have you reach people with different learning modalities in themselves, but with the new space. And you could also have more free time with some of these online affordances to really have more personal connection to your learners.

JOSHUA:
That's super attractive. More free time. I like that, right? Who likes more free time? Right? Raise of hands. Love free time. Okay. So yeah. Thank you for that because it does point to

what's the penultimate factor, the most important factor when it comes to instruction and instructional design is you. You are that factor, You are that piece. And so you can take it upon yourself then to use a variety of modalities and mediums. But it's, it's you, the method, right? Being the one who is in charge of things. And so when I think about that and I think about, well, how if I'm going to have this online course and it's going to be fully online. And so I'm going to have students in Lac La Biche or in Hope or wherever around the country, be taking this course. And I want to communicate with them. My thing that I use most is email, right? I'm just emailing back and forth. But other than email, like how can we connect with our students in this digital format?

JESSICA:
Yeah, I think that's an excellent question, right? Because that goes back to what we talked about with teacher presence. There's more than one way to connect with students. And even if you think, when you're going through a course, we want to make sure we have that teacher to learner interaction. And we want to have that throughout. So whether it's work submitted and we comment on it, or through our learning management systems, we can have connections there. You really want to try to have a variety of ways. When you want to try to have a variety of ways, not just whether it's responding to assignments or emails or discussion boards, but also a variety. Maybe we do some video commenting back-and-forth, say you're doing a demonstration. And then your students maybe didn't demonstrate the correct way to weld something together. Well maybe do you have a video of you welding that you could send and have them say, Hey, look, I see that right here in this step you missed just this moment. And so it's right on time, corrections and connections. So kind of thinking about like, when do we need, when do students need that teacher-to-the-learner feedback? So you always need that for things like assignments, discussion boards, and email really should just be minimal where it's just like something out of the ordinary. So we like to usually when we design courses and build in regular communication, whether it be a discussion board or like assignments, right? If they submit something, they need some sort of feedback to know where they're at, what they need to do next. So building in regular teacher-to-learner connection is crucial. So that you feel that the teacher presence and you feel like, okay, they're with me, they're helping me. They see me in my learning. They understand where I'm at.

JOSHUA:
Yeah, that's one thing that I find is I don't want the students. When we were all teaching in COVID during that lovely time, that it was hard to get that presence there, right, Because I was communicating via email and then we had our Zoom meetings. But to really connect these other pieces, these other elements would have been so helpful to be able to have these touchpoints going back to what we were talking about earlier, where we have these touchpoints where we can reach out to our students and check in. We have home at dinner time. We check in every day. Roses and thorns. What's one good thing? What's the one bad thing, right? And so sometimes the roses are high and we get varying levels of roses and thorns. But I think that something similar can be done in the classroom setting where we can say, Hey, you know what? After this module, after this quiz, after this exam, let's check in like we were learning earlier. I believe it was Chad who was talking about how he checked in with his

students. He had these assignments and then he'd make sure before class or during lunch, he would sit with them and say, Okay, how did this go? How did it not go? I think that you can have those discussions with your students and make time for it. Both in person, but particularly in this online setting, because that's what we need, right? As people, we need to feel like whoever is instructing us, whoever is helping us, or whatever situation that they're there for us. We're very egotistical. Hey, you had another comment, right?

JESSICA:
Yeah, I was going to say, we need to think about that learning community, right? So sometimes it's, again, it depends on your needs, but oftentimes students will have similar questions. So emails are really inefficient because you'll have student Johnny emailing you, Hey, I don't understand the assignment and then Susie's emailing you, Hey I don't understand some other assignment. Sometimes it's also cool to think about a learning community. So can I have a discussion boards for Q and A's. And it's like, Hey, I can't find this. And then Johnny can jump in or Susie you can jump in or the teacher can jump in. So we can have learning communities where we can have these conversations as well. So it's not just like one-off emails, but it's like, oh, I see that we can connect in this learning community. I think. Yeah, and I also like Clint's ideas, right? Having some drop-ins or moments sometimes to what we want to think of is what do we need? Like you said, we're humans, we need human interaction. Sometimes it's helpful to have, it's not just on content, right, but also like, oh my gosh, what did you do last weekend? Human connection, where it's not just you did a poor job welding or you did this, that it's like, okay, I want to know you as a human too, how can I do that? And that goes back, I think when we do, like Laurie said, with introductions, like let's do video introductions. And that goes back to you to slowly integrating technology, right? So you can like a two-for-one. We're slowly integrating technology. We're using this new video system. We're introducing ourselves, getting to know each other, doing small talk, building community, opening the doors, but also then preparing the way for future technology assignments or connections. Always thinking of those things kind of like, okay, can I have a Q&A? Does that make sense? Should I have drop-ins? Can I have a space where students can just connect to other students and say, Hey, I'm stuck here. Are you stuck here? How can we build that community? So it's like a safe learning environment. And that goes back to our methods. What is our methodology and our way to connect to our learners?

CAMELLIA:
Yeah, absolutely. I think again, we're educators so we always begin with those outcomes? If the outcome is that strong community, well then you just, again, it's like what are the steps you can build to facilitate building community and online spaces? I think we have to recognize too. COVID initiated a burst of people touching an online space for the first time, kind of first-timers in an online space and it was horrible. And so we have to recognize too, COVID online spaces were emergency design, meaning most of us took what we did in person and slapped it onto the screen. And it wasn't designed with methodologies, wasn't designed intentionally. It was designed because it was an emergency. And so you have learners now have a bad taste. The one and only moment in class we're doing a really stressful moment on planet Earth with a course that was horribly designed with no teacher presence because the teachers too were

freaking out in their own realms. And so what I think it invites us to do is sit in a space and we're like, Okay, we now have calm moments to intentionally design online learning in vocational educational opportunities for learners to connect to each other. Maybe as they are distances as Josh spoke to. Maybe connect to other people in other trades to explore new options. And so as you build out intentional design in your course, you can be like, Okay, I'm going to initiate all of our discussions with a very informal breakout room. And everyone's going to go in and just chit-chat, just like you guys have chit-chatted over lunch, chit-chatted between sessions. You build in that informal conversational moment. Maybe you're going to use what we did with the Jamboard or mirror board and be like, okay, I want everyone to slap up a picture of the week and just chat about you in that Jamboard. So maybe it's horseback riding, maybe it's the fact that you're under a van because you broke something and you will try to fix it. Maybe it's you hiking or mountain, maybe it's you swimming in the pool, maybe it's eating a delicious food. But then you have this informal kind of initiated chit-chat. And again, it goes back. Why would you ever choose to use your valuable time to do it? Your outcome to build community. So again, as you're building your course, imagine you're building it out with those outcomes and that connective piece, you have the power to now build a course that's not a bad taste, COVID emergency course, but a beautifully, intentionally designed course to actually propel your learners to an authentic ground so they can sit in those skills or trades necessary to do tests to be successful career individuals.

JOSHUA:
That's fantastic and I love how you both have highlighted the necessity of community, the necessity of being intentional in designing this learning community. And to be able to lift those students up, to strengthen those students and allow them to see more sides of you, to see the sides of you that are authentic. And so I think that that would be very helpful in building those other lines of communication, building those relationships, strengthening that online presence, right? And then online, sustainable presence. Because if you think about it in a different way, how sustainable is building a relationship with someone who you email once a week, right? Versus someone you sit with daily, right, and interact with. And so those different pieces, I think are very important. One other question that keeps coming, or another question that I have, particularly with electrical, is because we have this nice lawyer book that now we require electricians to read, and so we all have law degrees and can read the code. Hey? No. So how do we, how do we take this book written by a different community who, and then now we have to instruct on it. And it is so engaging. It's exciting, right? Like, how am I going to teach code in a manner that, once again, would be taken up by the students, meaningful for the students, and do that in an online setting?

CAMELLIA:
Yeah, maybe I'll just introduce. So Jessica has been the designer of curriculum over 61 language courses. And so when you speak of someone who's maybe not proficient in the law written code book of electrical realms. I think she'll, I'm inviting her now to share that piece. Like in what way do we speak to people who know two words in a language and then know amazing proficiency in a language. I think it's similar. How do you invite people with a low proficiency of law vocabulary and vernacular and jargon to sit in understand the, I mean, there's probably

important principles and points that are not to be missed, not to be misunderstood or skipped. So yeah, maybe Jessica, in what ways have you, discovered ways to take the content that's complicated or complex and invite basic, educated, I would say novice proficiency law individuals tap into those areas.

JESSICA:
Yeah, I think like you said, so I've worked with lots of fields where we have something super complex and we're trying to teach it to someone who that's not right where they're at. We've tried to teach medical terminology and processes to just regular undergraduate students who have really no experience. And what you want to think of too in these areas is a big piece of it is the so what. If the learners understand why it's important it helps motivate for a hard piece. But then we also want to think about scaffolding. How can we take this idea and show it in a plethora of different ways? Maybe we have some videos about it, maybe we have some text about, and maybe we have some interactives about it. Maybe we have little experimental designs where they go through different situations and see, Oh, I see. If I connect this wire to this wire, this is what happened and this is why it's not Okay. How can we take that text? If we think about too the presentation that we recorded and didn't talk about fidelity. How can I create a higher fidelity presentation of the content so that it can be understood by more people? In language learning, we often talk or in learning in general, we often talk about a learning ceiling or how much we understand. So we give our students what they understand and a little bit more, right? To stretch them and what they know always grows. So we can slowly give them a little bit more. So here with a law book, for instance, it's complicated and hard to understand. Can you give them the basic concept and slowly stretch and grow them or can I show them this so what and why it matters? And then show it to them in so many different ways. Like I said, images, videos, interactives to help lower the stress level and increase the ability to understand and take in such complex topics.

CAMELLIA:
Yeah, so beautiful. Again, Jessica sat in those spaces a plethora of times in success. I think too. You know, it's again, tying it in. There's a reason for the code book. I don't think it's just to make you guys sit and read black words on a white page. If it is. Lame. But I think what it is, is it's trying to support you in your jobs, in your task. Again, if you are a master of the code book, what does that enable you to do as a professional in your space and then build it in so it's authentic. Like what part of the code book matches what you do in your daily tasks? And then build it in again. It's authentic. You don't have to slap someone in the face with a massive code book that's like a firehose of tap water you're trying to drink, impossible. You just get sprayed. It's just nasty face reactions. So I guess to save everyone nasty face reactions, I would just invite you to sit in your code books and your realms and say, what are those pieces that actually afford me as a professional in my space to do my job? And then how can I authentically piece that to a content module or learning outcome so that the learner can see that transferability. It's not just black words on a page. It's not just boring law jargon, but it's like, wow, if I understand this principle of electrical or this principle of plumbing or this principle of culinary arts or whatever it is, whatever your space is, then I can do more. I can see more, the philosophers and the individuals who do research say we actually can do more with law, with

order, with structure. And so if you allow your people in your spaces to see the structure of your vocational realms, they actually can use the innovative minds to do that space better, better than maybe even you, which may be scary. But if you grab them in, invite them in, I think that's where it is. It's like Jessica said, scaffold out but then tie it in. Tie it in authentically. That is the so what. The so what is the reason why you understand that code book is because as you power when you now start to innovate in your new space as an electrician, as a plumber, as an artist, as whatever incredible skill you have, you now can do it with increased capacity because you understand the basic rules of your realm.

JOSHUA:
Thank you for that. Yeah, that's really helpful. Reaching to that high-fidelity point with something as complicated and as potentially boring as code. I think you've touched on such good points to really, you know, maybe, I'll now showcase to the students what goes wrong when you don't follow code, right? And so maybe I'll have a picture of a transformer that's exploding or a video because there's lots of those on the Internet of transformers exploding in particular. But those types of things, and that you're right. Then I can point them right to that code rule and say, This is what the code rule is talking about. And because they didn't follow transformer laws and rules, then we now have this explosion. So those types of things can be useful. Yeah, and I think Thank you for that.

JESSICA:
It grabs your attention, right? If you're like, Oh my gosh, you just showed us this transformer exploding. If that happens on the job, I'm not going to get another job because there'll be like, don't hire this guy. And so being like, Oh my gosh, I see the importance and I understand. And then that high fidelity, right. Being like, okay, we have the so what, now I understand why this is important. And yeah, the text level, as you explained, is probably too high. How can I scaffold that? How can I showcase that in a variety of ways? How can I bring it, hit it home so that I'm uber engaged because I don't want to look like an idiot on the job? And understand, okay, this is why it matters, this is how it applies. It being a translator between the code book. And sometimes it'll take a subject matter expert with an instructional designer to be like, I can help you build experiential design to help explain this subject matter expert problem that's so important. Because maybe you're not familiar with it, but an instructional designer could sit with you and be like, Okay, how can we make this meaningful? How could we hit it home? How could we scaffold it and make it high fidelity so that you then can translate that content into an experience, a learning experience that is meaningful to the learner.

JOSHUA:
Oh, yeah, that's so good. Thank you. Now, when, so now I know how to teach code a little bit better, which is great. What about exams? So we have lots of different ways of doing exams online, but there is this fear, this reality of cheating on exams and particularly, how do we address that with our students, our trades, and our TVET students? It's some modalities. Well best practices or other things that we can get into.

JESSICA:

That's another question we get all the time. I think it's like, oh my gosh, everyone's going to cheat. What are we going to do? And you want to think about, first of all, if you have, you want an assessment, a test that matches your learning objective, right? And if you end up with something that's just multiple choice, that's easy to cheat on, is that, does that match what they're going to do in real life out in the fields? We probably want learning outcomes that match what they're going to do in the field and assessments that then match that. So maybe we don't want assessments that are easily cheated on or don't necessarily test what we know. Sometimes I totally understand it's needed to have an online test that's multiple choice or video upload or text essay, whatever. There are online tools that you can buy that record the room and check for eye movements to see if you're like cheating at notes. And there's a plethora of companies that do support and check for online assessment cheating. I know universities that we've worked with in the past, have used a plethora. I think a big one that is commonly used as Proctorio. And then you can just be plugged into your browser and it just knows that you're opening other tabs. And again, with the eye tracking. But I think you also, when you're designing an assessment, want to try and design an authentic assessment that really measures. Are they learning what they need to when they go out to the field will they be able to? So it's something completely different to be able to answer multiple choice test versus go and do some electrical work with your hands. But again, I understand that sometimes we need those assessments to make sure we understand things, but keeping those two things in mind. There are tools when we need it. But then how can we build authentic, meaningful assessments?

CAMELLIA:
I think it's important to sit in the two types: your formative and summative. Sometimes your formative assessment. It's not so important. If someone is needing to go Google it 100 times until it actually sits in their mind, or they have to return to the material, the textbook, or your notes in a lecture or whatever you've done to scaffold it, whether it's a visual image or an audio, it's probably okay. Some people just need a touch time with the material that's higher than other people. So if it's formative, when we spoke to the affordances of that instant feedback that H5P could offer you or other tools where it's just the student can do it limitless amount of times and be like, Okay, I'm right. No, I'm wrong. No, I'm right now. I'm right again. Okay, cool. Oh, I'm wrong. I should go back maybe why am I wrong? Let's look. If it's formative. It doesn't matter to me necessarily because the steak is low, low stakes. Now on a summative, maybe it's a higher stake and maybe that's what Jessica's speaking to, the transferability. If it's a higher stake, maybe it's actually you'd be like, Okay, I need you to demonstrate to me the way you can connect two wires to have a light bulb turn on. Who knows? I'm not an electrician. But if you have these two wires and you connect it and the light bulb turns on and you demonstrated that to me. Well, beautiful. Now I can know you did that and that's not a multiple choice. Maybe it's not like choose A if it's wire A that you connect to wire B and it's like A. Maybe you actually had to show me that. And you showed me that maybe with your mentor overseeing you on the job and they videoed you setting it up. And again, it could be low stakes. You don't, like Josh said, blow a transformer or injure someone. Safety is important. But maybe there's lots you can do to allow those assessments. I think the trades and vocational skills offers you something that you don't see sometimes in other professions, like sometimes, you have to

go to school forever and then you don't touch the actual profession until you've finished your entire degree. Like your entire 10 years of study and now you're actually in as a surgeon or something. I think what you offer individuals in the trades and vocational areas is touchpoints to the real job that other professions and careers don't offer. Take advantage of those affordances, allow people maybe to have assessments on the job that are that authentic transfer. And then there is like in what way you're going to cheat? I don't know. I think it just allows in those moments, maybe the opportunity for people to have that authentic transfer but in a new space. maybe it doesn't always have to be online. Maybe it doesn't always have to be multiple choice, as Jess said, maybe there's multiple ways to assess someone. And maybe we just need to tap into it a bit.

JOSHUA:
With those multiple ways of being able to tap into test culture, exam culture. And the different ways that we examine students. When we're designing programs, when we we're designing this fully online electrical program, what would be. My thoughts go to, I'm trying to have a community going back to building community that is going to have lots of different touch points. That's going to have some high fidelity going on because they need to apply this content often. So do you know of some effective ways to build a community of integrity around some of those things that we've been talking about?

JESSICA:
Yeah, I love that. I think that was like some of the formative assessments like Camellia talked about, if it's something we're doing along the way, it'd be beautiful for instance, if we have like open uploads of videos. This is me doing this on my job and we can see all the people, all the students in a cohort sharing how they did it. And you can give each other constructive feedback. And it's like, Oh, this is a safe space. Like I see how you did it and that was cool. It'll be helpful too because it's then in different scenarios, right? If they're doing this on the job and it's like, Oh, you did it here and it was slightly different. And now when I do it in a similar situation, so it builds like that cohort. And then again, the teacher present can be there. I think it helps them to be like, Well, he did it. So I'm going to do it too. Setting things like that where it's like, Okay, we're in this together. Again, making it real and human. The more real it feels, the less they're going to want to cheat and things like that, right? So I think setting things up like that would be beneficial for those types of setting up an integrity, a community of integrity.

JOSHUA:
I like those ideas, and something that Chad spoke to earlier of peer assessments. And Jessica, you pointed to a really good way that we could use peer assessments in that way. So yeah, you have to upload a video of you installing a light. And so now we've got 16 videos of people installing lights. And you know, they're all going to assess each other. And that would be one of those ways that you can build that community, not only of integrity but of trust and networking. Those are the types of things that we want to build for our students as well. So we can build these communities, networking communities and trust communities, integrity communities, so that they can go through not only their apprenticeships or whatever type of training they might be getting involved in. But throughout the rest of their lives with this

mentality and this idea that I can trust those around me. I can take criticism from my peers, especially for electricians like journey people and to apprentices. Myself. When I was on the tools, one of my favourite moments was when I got to correct the boss. It was so good. It's like I'm a second-year electrician. But actually at the time I think I was a little bit more than that, but we were told strictly when you run wires, they're 90 degrees. That's how you run wires. There's no, We call it cross-country. You don't go across the studs. This room, for example, I'd go straight down the line of lights and then straight over to the switch. There would be none of this going back and forth and all this other rigamarole. I caught the boss doing one of those. And so it felt so good as the apprentice because I had that community of trust, community of integrity already built to say, Hey, I did it facetiously. Who ran this wire? I know exactly who ran that wire. And I yelled it, right. So now everyone knows. The plumbers know, all the electricians know. And then one of the other apprentices was like, Oh, I think that was the boss and I was like, Hey, this is garbage, right? And just giving it to him. And he goes, This is a budget house. So we're able to move on from there. But yeah, opening that dialogue up, having those communities in those networks so that we can build that comfortable space for our students to go fully online and to be able to progress in that realm and be comfortable with it. So thank you. That was fantastic. Any more comments? Camellia, Jessica?

CAMELLIA:
I sense, to me, I mean, Jessica may have additional, but I think it would be beautiful to tap in, I guess, to the audience now. We'd love to be in the flesh, but I guess tapping into the spaces of hybrid worlds. Other inquiries you have. Obviously we spoke and highlighted to the electrical realm, but maybe specific questions you have. Responsibilities, we understand some of you, there are employed in trades application works, and some of you oversee those opportunities in institutions and make the decisions about what tools you purchase for your institution or what courses you build. Give the go ahead to inside your institution. So yeah, just opening. I think we have about 5 minutes left. Your questions to know and understand you better and support you. online or in the flesh. Either way.

JOSHUA:
We've got an open mic here, right. So those of you who want. Hi there.

SALLY:
I'm Sally Vinden, from Vancouver Island University. Absolutely loved what you are sharing with us today. I'm so passionate about curriculum design, especially in the online environment. And I think you have just knocked it out of the park and done so nicely. Thank you. You reminded me of a study that came out of Red River College back in 2013 about the welding apprenticeship, and I don't know whether you read that one before, but they had welders in the north of the province there that was so busy. The apprentices were so busy that they couldn't return to complete their apprenticeships. And so they were. You're nodding. Joshua is nodding. He's probably heard about this one, but they had Gopros inside their welding helmets and they were uploading the welds that they were doing, sending it back. And just as you said, their instructors were absolutely able to focus in on that exact moment when something went wrong in the world. And just from that model, like the hairstylist program, the asynchronous one that I

designed. Follow that and I think what you've shared with us today is really opens up. I think what you've done is really sort of crystallized those elements of the unnecessary and simplified it as well. And it seems to me that if you were bored and you were looking for something to share wider, that you might want to collaborate with some other folks and maybe look at OER that could then take this story much wider and contextualize it as well. Use electrical, use these other programs. And because I think the building blocks to where you are today and for many others, it's been a bit of a long journey, but we don't need others to take that journey. So there's a bit of an invite here to collaborate. Or maybe Mr. Carson has some ideas that there could be some nice resources. Those comments rather than questions. Thank you.

CAMELLIA:
Thanks to you. Jessica.

JESSICA:
I was going to say thanks so much. I think that's what we've seen a lot. A lot of people have to hit hard roadblocks and hopefully we can do, well, not have to hit all those hard roadblocks those hard ways to learn those lessons.

CAMELLIA:
Yeah, I know it'd be beautiful. You know, we're sitting here today as our own 2022 Trades Summit cohort. I think it'd be beautiful, as you said, to collaborate and to build it and then to speak to it. As we build on it, maybe even next year as we collaborate. Maybe even in the flesh, inviting others. I think there was a beautiful space and absolutely we'd love to continue to build connection and collaboration so that we can increase our scope with this with this topic.

JOSHUA:
Can you hear them? Can you hear what she's saying? I know not what she's saying? She's saying that she might send you an invite to the Digital Tool Shed, that but they're working on so yeah.

CAMELLIA:
We'd love to. Thank you.

JOSHUA:
Might means will, so expect an invite to you soon.

CAMELLIA:
We also love B.C., so maybe it'll be even in-the-flesh visit next.

JESSICA:
I just threw our little email in the chat in case you want to contact us anytime. We're happy to collaborate.

JOSHUA:

I love that, Cora. Yeah. Yeah, that is cool. Those of you that can't read the comment. Cora, she said that our cabinetry and woodworking shop has installed cameras on machines which broadcasts to screens in the shop and the attached classroom, which provides opportunities for all students to learn from what's happening in the shop in real time. It's fantastic. I know that at Lethbridge College in the Welding Department, they've done something similar with the GoPro idea and the broadcasting it. Because, if I'm doing a weld, then I'm hunched over, it's very difficult for the students to see what I'm doing. And so then indeed they've got those cameras and it's on a screen. So now the students are watching that in real time. So, glad. Yeah.

JESSICA:
And sometimes it's thinking of what you just said, Josh, reminded me of when we were chatting earlier. Sometimes technology can help us do things so we can't do in the classroom, right? So I can now see it from many angles. If I'm asynchronous, right? Or I can be like crap, I missed that. Let's watch it again. I don't quite get it and I can rewind and watch again. And so that technology now amplifies and transforms and betters the learning that couldn't have been done synchronously in a classroom. So it can't be like, Oh, I miss it. Can you weld that again or can I look between your hands and stand? It's just, it's not possible. So sometimes technology just helps us do things that is not possible. So again, thinking about what we want to do and how to do it best to amplify the learning.

CAMELLIA:
Yeah. And again, just thanks to you. We understand like you are experts, like in your realms. And I think as Jessica spoke before, our simple small opportunity is to remove, and blend our expertise in the instructional designing realm with your expertise to build out these opportunities for learners. And so just know your brilliant minds, your innovative minds like you've tapped into your spaces for decades. You understand it in deep, deep manners. You've seen success, you've seen unsuccess. But you really are masters of your craft and of your areas and of your spheres. So simply, I think as your shoutout invitation, it is, it's just connecting to people who have that lens of maybe of the instructional or technology space. And combining it to build out opportunities. So again, it's not just about module completion, mastery of proficiency in a skill set, but it's career success to build our world with the skills and mastery you have. So just thanks for the opportunity to sit with you, to chat with you, to learn with you, and to soon discover better ways to design courses with you. Thanks.

JOSHUA:
Thank you, Camellia and Jessica for coming in virtually and sharing this experience with us. So thank you all. And that's it from here.

JESSICA:
Thanks so much.

CAMELLIA:
Yeah, super pleasure. Thanks.