

Trades Summit Series: Strengthening Teaching and Learning for the Future

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Keynote: Onward: In the Wake of COVID

Keynote Speaker: Sally Vinden

Host: Tim Carlson

TIM CARSON:

So without further ado, allow me to introduce to you our first keynote, Dr. Sally Vinden. She is my friend. She's a colleague. She is a co-disruptor. And Sally has made a tremendous contribution to TVET, especially in the areas of curriculum development and faculty growth. She received her doctorate from SFU. Following the completion of her doctorate in early 2020, Sally held a position of TVET Special Curriculum Teaching and Learning Specialist at VIU, that is some business card. Today she is Acting Associate Dean with VIU's Faculty of Trades and Applied Technology. She's been an advocate for the development and harmonization of trades in Canada, Trinidad and Tobago, and Kenya. Her unique educational journey from trades person to academic disrupts traditional thinking related to the academic vocational divide. It's my pleasure to introduce her to you this morning. Got everything in place.

SALLY VINDEN:

So good morning, everyone. Thank you for that introduction, Tim. I don't really recognize the person you're talking about because it's all a bit of a blur. But thank you for that. Thanks everybody for being here today. And for I think really showing, your attendance here just shows that true passion and dedication towards TVET. In the big pitch for those that are here with us virtually. I can't see you right now, but I know that you're there. So I think the fact that we've all come here together and we're focusing on TVET says something about the time and the place that we're living in right now. So I also want to thank Clint for getting us started today in a really good way and just talking us through his own journey about how it relates and how it brings us to where we are in this current time. So I won't tell you any more about me because I can't do such a good job as Tim anyway. I started my career as a hairdressing instructor or as a hairdresser back in the UK. I didn't really, I left high school with virtually no credentials whatsoever, got a hairdressing, apprenticeship, loved the trade, was quite successful in that trade. Moved to Canada, had my own business, all of the regular little patterns for tradespeople, and then moved over into that whole idea. Oh, I think I would like to teach. And then once I got into that teaching and just realized that there was no such thing as an academic-vocational divide. Just because I'd been streamed into vocational education at the age of 11. In the UK, that's normal. You take an exam 11 years old. It determines whether you're an academic or whether you're trades and vocational. And just so you know, at that time, only 9% of those students actually got to move forward into the academic stream. So that's a little bit about what drives me really, because as I always say, that I'm very well-balanced. I do have a chip on both shoulders about that. But when times get tough, it really helps me move forward. So today, presentation onward, we're moving onward from COVID. But as mentioned, we have these challenges ahead of us. But before we move ahead, I think we need to take the time to look at what we learned throughout COVID.

So fortunately for you all, Tim Carson, Chad Flynn, who's not here today, he'll be here with us virtually tomorrow. And myself performed a research study throughout COVID. We obviously had nothing else to do. We thought, well, why don't we do research. We can't go out, so we might as well do some research. Just before I get into the nuts and bolts of that, I'd like to let you know how Tim, Chad, and I first met. Back in 2019, I received a grant from the ITA to develop an innovative delivery model for hairstylists. And it was for hairstylist level two apprenticeship. So those of you out of the province won't know, but until 2019, level two didn't exist for hairstylists in B.C. So that was new. And then we got this funding to develop this new modality. Yeah, new delivery model. And so I developed, I took a five-week apprenticeship block. And the pushback from industry was huge. Industry said we do not want our apprentices leaving the salons for five weeks. We're not buying into this. They're not doing level two quite simple. We looked at that block and said, Okay, how about we take 10 weeks, 12 weeks, 12 weeks at 10 hours per week, fully asynchronous, but very, very, very high level of student engagement. I had designed this and I was very excited about it. And so I put that out on Twitter that 21 students throughout the province enrolled today into this first asynchronous delivery of hairstylist level two and within a, I'm going to say an hour, Chad Flynn said, Hey, somebody else looking at doing this kind of things in trade, Tim hopped in there. Within two days we were meeting in Zoom. Within two weeks we were meeting in person. And when I look back at that now, how that started this, what's been just like a fabulous relationship, friendship, and really I think we've all learned so much from that. So today, when I look at what has happened since 2019 and just recognizing those incredible relationships, how they can begin through technology and grow through technology as well. So the research. Here we are now, we're regularly meeting and we're talking about what the issues that we see. And we start saying, okay, well, what are the, what are the solutions? Where are the solutions to these issues? in TVET. BCcampus put out a call for proposals so we jumped in and said, Okay, let's look at performing some research and we were really curious about the current practices in TVET. What digital teaching and learning? What technologies were being used? What pedagogies were being used? We wanted to know more about that. So I'm presenting today. But I do want to give credit to my co-researchers here to Chad and Tim, so just keep that in mind. And of course, if you don't like it, do keep that in mind.

So prior to COVID, we knew that there were folks out there really exploring the integration of technology into their TVET practice. But we knew that they were few and far between. Just talking in our own faculties. I come from a faculty where we have approximately 90 instructors. Tim at the time was at BCIT, so was Chad, and so we had lots of connections. And so when we designed this research, we were thinking, Okay, how are we going to find enough folks to participate in this research? But then suddenly, as you all know, COVID landed or actually plummeted into our lives. And here we were in this whole sort of unique environment when everybody was forced to use technology and everybody had an interest in using technology, whether they liked it or not. So suddenly we had this rich opportunity for data collection. One of the things that we noticed very, very quickly. So as we were working on designing our questions, we were already seeing the stress that was, that lots of instructors were going through being faced with this. Being forced into that remote delivery opportunity or the others that didn't see it as an opportunity. This helped us in many ways, shape our research questions.

So four key questions. Like I said, we really wanted to know what digital teaching and learning practices were being used by TVET instructors. It was really key for us to get a really deep understanding of what was going on out there.

We also wanted to know what levels of competency TVET instructors had in digital literacy and fluency. So we expected to find it was quite broad, but we really needed to know what was, what was going on there.

This particular question, this builds on my previous research that I performed for my doctorate, which was really sort of like 2018, 2019. And what I had learned from that was how instructors' perceptions shape their pedagogical choices and their curriculum choices. We really wanted to look here. In particular, we knew that we weren't going to invite students to take part in this study. But we wanted to know instructors' perceptions around their students' reviews and their students' abilities. Those digital platforms.

Then the big one. We really, because we were looking at strengthening, we were looking for where the needs where we wanted to get a better idea of what TVET instructors, what their PD needs were, what they felt their PD needs were. And so we really dug deep into this question.

Now, any of you that may have spent a little bit of time reading through the 50-odd pages. I believe they're all there. You'll know that we go into great detail in the paper. But for today's presentation, I'm just going to give you that 30,000 foot view of what we found throughout our study.

So we've got four overarching themes that emerged. And first of all, I'm going to dig into this one quite a bit because throughout the pandemic, what we found was there were these emerging digital pedagogies that clearly had not existed prior to the pandemic.

So for example, synchronous learning prior to the pandemic. If somebody said they were, we, we didn't, we never heard anybody describe their face-to-face teaching as, Oh, I'm teaching synchronously. It wasn't a terminology. But suddenly it was an everyday term. Is it synchronous delivery? And in that synchronous delivery, we learned very quickly that what many folks were doing is they transitioned their teaching practices in from the classroom into Zoom. And they were teaching between 5 and 6 hours a day, some even 7 hours a day of direct instruction via Zoom. And many of them spoke about their camera-on mandate. They tried to recreate that in-person classroom, which I know you've all heard about these kind of things, but we also learned from those folks quite quickly that this wasn't sustainable. So those that were doing that for the first six to eight weeks, their attrition was really high. Students could not sit in those environments for that long. So in my role as teaching and learning specialist at the time, people then started to talk about blended. They were really looking for support. Their idea. The first thing that they could grab onto was any sort of sense of what blended might mean. And I'll talk a little bit later about that range of blended. But it really was a mashup. When you look at that, that sort of captures credit to Chad Flynn for that slide there by the way.

Then we got into this blended asynchronous and that could mean anything. Oh my goodness, the range of pedagogies we saw in there was broad, wide, and not necessarily very deep. Then next, so our first thing was around those emerging pedagogies. The second thing really that emerged was how the tools were being used. So we looked into that one. And I'm going to break these down a little bit more as we move on.

But when we got into the tools, what we learned was that in many cases, tools were being used in a variety of ways. And we put this on an axis here where we've got the high-tech, high use of technology, wide range of technology, low use of technology, or limited, limited use of technology. But then you'll see over on this side we've got the learner or learner-centred and then the teacher-centred. For example, we actually interviewed one instructor that we classified as teacher-centred high-tech. This instructor would set up his technology in front of Zoom camera. He was in Zoom for five, six hours a day. But he had previously been a filmmaker, so he's in the trades he's, this is his side gig, the film-making. And so he would set up, have this setup that as he was doing his direct instruction, his lecture that as students, as topics came up, he had that flexibility that he could bring up the YouTube, he could bring up a different reference. And he described it that it was up to the student for the viewers. It was like watching a movie. So he was able to do this. And so when we looked at that and said, Okay, how would we classify this? We said, Yes, it's teacher-centred, and it's high use of technology, very, very fluent in there with technology. Now, our idea of categorizing here was not to, actually, we looked at it more like a continuum, but organized it in this way. And it was not to prioritize one approach over another, it was just to explore. We also, we did, we found folks in all of these possible scenarios. So low-tech, teacher-centred. Low-tech learner-centred. And so for example, a low-tech learner-centred. We have a fabulous instructor in our bake department. And she had designed fully asynchronous week-long modules on breads, on the 12 steps of bread, one week module, 12 steps of bread. She had instructional videos that she had made. She had readings. She had. Students were to upload their videos of what they were making of where they were performing it. So she was able to do this using only Zoom and an LMS and obviously uploading video. And what she would say is that she had designed this self-directed journey with all of these touch points. So she was in regular communication, providing feedback on a daily basis on what was being submitted. But she only parachuted those students into Zoom when the problem that she was presenting them was too large to be solved individually, like she wanted them to be in teams. If there was no purpose for them coming together into a team, then they were, they were asynchronous. So right now, we're going to take a pause. And if all is going to plan, this is where a mentee meter hops in. I'm looking at Kaitlin. Look at this.

Here we go. And so I don't know whether you can see the code there, but if you'd like to get your phones out, the mentee metre code is 79691143. This is the great thing with having the BCcampus tech team all in the background. It's all going on behind the scenes.

So once you're in there, your big question is, Thinking about what I've said so far is where do you think your students would place you? Oh, this is great. Just going to wait for a few more to

be in there. So hopefully the folks that are with us virtually today, they're able to log on. And place where they think they are. Okay. High-tech learner-centred, really, not really surprising. Consider the group that we're here today. Not really very surprised. Can somebody, does somebody want to take a minute if you put yourself in the high-tech learned centre, just give us an example of something that you do. Anybody here in the high-tech learner centred? Nobody. Yes. I knew you were, that's why we're staring. Yeah.

PARTICIPANT:

So I use I use Kahoot during the classroom. So embedded in Kahoot there's YouTube videos and those types of things. But because it's synchronous in the classroom, there's a lot of interaction with the students. We can pause videos at any time. We can exchange ideas. I can put fake questions on or questions with wrong answers on. And then I can force discussion that way. And so it becomes learner-centred.

SALLY:

Absolutely. Yeah, lovely, great example I think we're going to hear more about that aren't we? I'm looking forward to it. Okay. Anybody in low-tech teacher-centred? Got anybody in low-tech teacher-centred here with us? Or anybody virtually that put themselves in the low-tech teacher-centred that wants to give us an example? There's nobody in the low-tech teacher-centred. How about a low-tech learner-centred? I think there must be somebody here that's in there. Anybody want to take a go at that one? Yeah, thanks, Jessica.

PARTICIPANT:

I'll give an example of not everything but an example of horticulture students. We had a plant id. Identify plants outside in teams. The tech that was used was a shared Google Doc. And the LMS. They used the Google Doc to organize teams to track what they found. The LMS to use a discussion to upload their pictures. So through COVID, they were outdoors working separately uploading their pictures from their phones into the LMS... [INAUDIBLE].

SALLY:

I actually know that project quite well and you should see some of those photos, they've just amazing. We need a whole week of this really so that everything that everybody sharing we actually get to see. But that's a really good example of that low-tech, learner-centred. Thank you there. Okay, so we have one more for you. We can move on to our next question.

Okay. So big question for you this time. Pedagogically, which approach is most appropriate within TVET? You must all have really good eyesight because this is very small on the big screen. You've got high-tech teacher-centred, high-tech learner-centred low-tech teacher, low-tech learner. All of the above. None of the above. Okay. So who wants to, who wants to respond to this one? There's 11 folks, 11 folks in all of the above. Anybody want to share why they chose that one?

PARTICIPANT:

It's situational and circumstances around it. So it would be foolhardy to eliminate three other options were suitable. For example, in my classroom, part of my first-year curriculum is that we have to go over WHMIS, fire safety, something most people learn in the workplace anyway. So I use BCIT's pre-existing fire training for employees and WHMIS training for employees. Make it available to my students. Other things that require more detail, I have them come into the classroom. Maybe we'll use some videos, but again, we can pause them in real time, ask questions, and have discussions around them. So both spectrums are important for around it. So that's why I said all of the above.

SALLY:

And you can see again in a way, you're saying 11 folks here, these with all of the group here, I'd love to chat with other folks as well, but you can see that there's a high amount, if you were to scan your institutions, do and just looking at what we found. So participant group was 37 trades instructors from throughout B.C. They performed online interviews and one One-to-one, One-to-one interviews and online questionnaires. And it's really interesting that these results was not what we found when we took a broader look around the, around the province. Okay, so we're now going to go back to those slides.

Okay, so we're still on these themes right now. And another theme that really was very hefty when this came for was how so many folks, their pedagogy was being shaped by prepackaged curriculums. So I don't know whether you're familiar though with those, but in many trades, you can buy this prepackaged curriculum. You have the textbook, you have the workbook, you have the PowerPoints. Usually every page that is in the textbook is then become a PowerPoint. And then often you have the quizzes are already developed for you. So linear, it's a very linear approach. And so we saw and learned from many folks that that was the structure of their pedagogical approach.

And then of course, the theme that we were hoping to find these opportunities for professional development. So as all good researchers do, what do we do when we find out all of this good stuff is then we decide to make recommendations. We hope that these recommendations will be helpful to you. As Clint had said this morning, we have these challenges ahead of us.

So let's take a look at these recommendations. We've got nine recommendations there that we think that just all intersect and overlap into our practice. And I'm not going to go over them all individually today. But I think it's, I think it's important to notice how attention to one influences another, but also attention to just one of these areas is still going to leave gaps elsewhere. So it really is, we see this as a hub area where these, these areas intersect with each other. So let's have a look at a few of these.

So first of all, one of our recommendations. Training in the use of synchronous and asynchronous instruction. We know everybody was thrust into that emergency online delivery, irrelevant of their competency in digital pedagogy. But really, what we think about. We put training in the use, really weirdly. It's training in the intentional use of the synchronous and asynchronous modalities.

Digital literacy on fluency to be integrated into TVET curriculum. So this is our second recommendation here. And as it was no surprise, no surprise to many that Prensky's notion of digital natives, digital immigrants was, it has been challenged and we would, we would challenge it as well. Our results showed that students were very adept at using digital devices for social media, but they really struggled with basic digital literacy skills, especially around searching for information online. So we see that there's a need for digital fluency and literacy to be integrated into trades programs.

This, we recognize the limitations of this study we knew going in, but it was really apparent coming out. The other side, limitations was that we really listened solely to the instructor's voice, that students' voice isn't heard within this study. So I invite you all to think about, if you'd like to do some research this year, really finding out what the learners, their perceptions around their online experience and their perception around their skill sets there. The other area that really comes into the student perspective is around the pedagogy of care. Now that filtered through this. There were rumblings of pedagogy of care in empathy and compassion. But it didn't really form into a theme within this study. And that was really because of how the questions that you ask actually limit your findings. So again, a really nice area to be explored further.

Chad, as you'll learn tomorrow, spent a lot of time developing open educational resources within the TVET paradigm. And what became really apparent was during COVID, those that did have access to open educational resources, they were much further ahead in their digital practice than those that were, had not explored those options previously. One of the biggest barriers to actual, the actual development of OER is around the time to create these resources.

So we found that folks had a big interest. They just didn't have time. Hopping onto that one as well, so further study on open pedagogical practices and the co-creation within TVET instruction. So educators, we found we're starting to see the value of open, open pedagogical model. We can now see, since all the hard work Tim has done, we can now see a growing repository of literature in the trades section on BCcampus. But when we first started this journey, it was notable that the academic side had, were building many resources, nothing going on there in TVET. But then we also want to talk about that open educational practice, your pedagogy, that actually offers these opportunities for co-creation. And a really, you've probably all heard of this but I'll share it anyway. A really low-tech learner-centred example of that is when if you do, if you have a prepackaged curriculum, you give the students the slide deck and they are, they sit there and they go through it. One of the easiest things you can do is take away all the content, just give them the slide deck with the heading on it. Then. Your students either work in teams or work individually and then they present that to you. And so that's like a really simple stepping point, but it's just a mind shift. And that comes into how we perceive the capacities of our learners.

Institutional support for faculty and students in technology. Technology is so much of their life now, we want to gain that level where we have the digital fluency so we can navigate around, but we're going to need support to do that.

And back to the OER piece again, we need to build this repository. There's many reasons for us to need to build it. And one of them is the fact that we are seeing advances in technology in fields in all of our disciplines that are so rapid that the resources that have historically supported a trade cannot keep up. So that's another reason why we need to do that. Okay.

How better to do that with them with a community of practice. I know many of you have got them going at your own institution. We created, or I launched the Digital Tool Shed at VIU mid-COVID, and we've got that community of practice. Jessica Gemella has now picked up the reins there and it is continuing. But time is critical when we need to. So if you're a dean, an associate dean, or if you're a faculty member, if you're in the dean's role, actually provide space for your faculty to build a community of practice. And if you're a faculty member, go ask your deans and say this is necessary.

Okay. I've got five minutes to wrap this up. So I'm just going to script this one for us here. So with this sudden and abrupt shift bringing TVET into a form of emergency distant education, there's no dispute that it brought forward challenges, but it also brought forward innovation and creativity. So we know that trades education has been permanently changed whether people like it or not, and it won't be going back to normal. This is our new normal. So the results from this study have shown that there is a broad range of skills, ideologies, and methods for using digital tools in TVET education. So we know that trades are working in this range of low-technology, high-technology and the varying pedagogies. But we hope that these results will provide you somewhat of a roadmap moving forward, moving forward into a much deeper understanding regarding TVET and where we need to go from here. We agree that there's no doubt that the bones, the bones, the structure of TVET are sound, but we believe it's in need of renovation, don't we Tim Carson? And we believe that digital pedagogy offers the tools to help create this stronger, creative, innovative, and in the end, more pedagogically sound system.

So you went just when you think it was done. What I am, just want to share with you now, I'm kind of switching direction a little bit from what we found to where we're going. So I mentioned the research that I performed in 2018, 2019. And at that time, I predicted that the old vocational model was no longer sufficient for the 21st century. It's a governance, it's industry led, it's economically driven mandate of the TVET model no longer serves the 21st century student. To be a second, second career educator, Tim mentioned this. To be a subject matter expert is no longer sufficient in our field of education and to assume that students identify as manually minded no longer serves us. So what I had claimed, and I mean, I didn't really, I just borrowed from what everybody else was saying here. But critical thinking skills have been identified as the most in-demand skill, along with problem-solving, team working, communication, and innovation. So having that's what the research shows us and I built on that.

So when we think about innovation, we've got two minutes to think about this and what I'm going to say before I finish up here. Thinking about innovation. As this definition shows here. Then when I look to a program I outline in B.C., we have the Industry Training Program outline which align with the RSOS, and then I look at the ideal of innovation. And what I see here is two conflicting ideals. They have different visions behind both of them. So the tension I see, that they are incompatible as such. And yet these incompatible ideals, they can, either, that tension can keep pulling them apart or they can move forward and find ways. And this is where I encourage you around finding ways to build innovation and still working within those program outlines.

And I don't have time to go through this. You can, I will send you a blog link later, but they'll, you'll hear more about this idea from me. Very briefly. We were approached by industry. They've found a way to breed sturgeon on land in captivity. So they've got this wonderful habitat where all these sturgeon are being bred. What do you do with a sturgeon? Industry approached our culinary team, biology team and said, Okay, we want to know how much per pound can we sell this to the restaurants? And so they, the culinary team, and the biology team worked together. And it resulted, it was quite the event. They put on three of these events, the students developed all of these different recipes with sturgeon using sturgeon. But the bottom line was waving when using every piece of the storage and the cost to a restaurant would be \$18 per pound, which is more than halibut or whatever. But when you look at the experience that the students had here, this is a real life experience with all the complexity of the situation with different stakeholders and the innovation that came out. This is quite remarkable. So we'll send the blog link, and I'm going to leave you with this, with this open space for you to think about where you can find, where you can build innovation into your programs. So thank you everybody so much. Thank you for listening. I really appreciate it.

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