

Learning Uncut Episode 48
David Broadhurst and Rae Grech – Harnessing Tacit
Knowledge to Make Work Safer
Hosted by Michelle Ockers



Welcome to Learning Uncut, where we talk about real learning solutions with people who made them work. Here is your host, the AITD learning and development professional of the year, Michelle Ockers.

Michelle Ockers:

Welcome to episode 49. This is our first story from the construction sector, a sector dear to my own heart, as I have many family members who work in construction. It is, of course, an inherently dangerous sector to work in, and there are fatalities every year. My first guest today is David Broadhurst, who's a veteran of the construction industry. After an incident nine years ago where he was supervisor on a site and someone almost got killed, he started looking at ways to improve the way that safety critical information is understood and safe work practices in the sector. This led him to cofound the organization Code Safe and to develop a methodology which has captured the attention of safety bodies in Australia and been the subject of research by the Royal Melbourne Institute of Technology to understand what makes the approach effective.

Michelle Ockers:

David is joined in this episode by Rae Grech, a health and safety manager who has a training background. Rae was working in 2013 in a ceiling insulation company, when she recognized the value of a more visual approach to communicating safety critical information. What you will hear them talk about today is a story of significant systemic improvements in safety in the organization as a result, where the real driver is not so much the content format and making the content accessible as the approach to involving workers and worker participation and unlocking tacit knowledge. Enjoy this fascinating story from David and Rae.

Michelle Ockers:

Welcome to the conversation, David.

David Broadhurst

Thank you, Michelle.

Michelle Ockers:

And welcome, Rae.

Rae Grech:

Hi, Michelle.

Michelle Ockers:

I'm delighted to be talking to the two of you today about this really important topic, so thank you for joining me. David let's start with you with an introduction to Code Safe. Can you tell me in your own words what the organization does?

David Broadhurst:

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Short version, Michelle, we help people remember stuff. That's what whatever seem to be good at. Why we set the business up about nine years ago was I come from 35 years in construction working on large diameter pipelines around the world, and we had an incident on a job where a guy nearly got killed, and I was the supervisor in charge of that project. So, Instagram investigation and root cause analysis on why did it happen, how did it happen and how do we prevent it happening again. Probably because of my frustration with the system that we were trying to operate, I just felt that there's got to be a better way to communicate critical information for guys who struggle to read and write, and that's where the whole idea came from, was more around, well, what's our preferred learning style and how do we communicate information in a way that actually works better for people in a 20 page document?

Michelle Ockers:

Yep, yep. So, Code Safe works in the construction industry, David?

David Broadhurst:

We started in the construction industry because that's my background, but we've fast been invited to work in other sectors, forestry, agriculture, manufacturing, healthcare. Quite fascinating, because I think there's massive skills shortage across industry no matter what sector you're looking at. The faster we can accelerate people being job ready through providing a different medium, then the better off everybody's going to be.

Michelle Ockers:

Yeah, because we're seeing more people having to come into sectors without experience, without the context of working in the sector, so getting them up to speed, particularly with safety, is a bigger challenge now than previously, perhaps, David.

David Broadhurst:

I think it is. Sadly you look at statistics, Michelle, and people are leaving schools now and their learning institutions with a lower level of language and literacy to what they had 20 years ago, plus we've got probably the most multicultural workforce anywhere in the world, so we've got to work out how do we communicate critical information to people that it's well understood and it can be implemented well.

Michelle Ockers:

Absolutely. Obviously, literacy is a key challenge for a lot of people that you're working with or the sectors that you're working with. It's a sad fact that there are fatalities every year in the construction industry still, including in Australia, right? That this is a very real thing. Yes, it's about improving productivity, getting people job ready quicker, but at its heart it's about making sure people are safer and there are fewer fatalities in the sectors you're working in. Right?

David Broadhurst:

Absolutely. When you map across, and you can get these statistics from the Bureau of Statistics or Safe Work Australia, it's quite fascinating because if you look at the five industry sectors that have got the most injuries and fatalities, they're also the five industries with the lowest levels of language literacy. So, we've got to start recognizing what our challenges are and how do we provide solutions that can sort of bridge those challenges.

Michelle Ockers:

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Which is the space you're working in. So, Rae, we're talking today about making work processes safer. This story isn't just about training, right? Which is a fascinating thing when I first came across the work that David's been doing, I thought it was all about training, but as I dug into it, and I know you're going to bring this to the story, it's actually also about making work processes safer. So, as a health and safety specialist, you engaged Code Safe to do a piece of work in the insulation sector. When was this work? When did you engage code safe, Rae?

Rae Grech:

It's probably going back five or so years now.

Michelle Ockers:

Yep. Can you tell us a little bit about your role at the time?

Rae Grech:

My role at the time in that company was the national safety manager, injury manager as well nationally, and I was brought in with the mission to achieve and write up all their policies and procedures and develop a health and safety management system. That included processes and SWMS toolboxes, and I was the auditor as well, so you would go out and then you would find that everyone had been signing off, but in practice, they were doing what they do.

Michelle Ockers:

Right.

Rae Grech:

So, that made me rethink about the way the information gets across to people.

Michelle Ockers:

Rae, can you tell us a little about the nature of the work that people were doing at the company and the health and safety challenges that this presented to the workers?

Rae Grech:

The nature of the work was installing insulation. That involved getting into roof spaces. It involved also commercial works and using height safety equipment and access equipment. It also involved repairing of damage as well as new commercial and residential constructs.

Michelle Ockers:

Okay. So we've got heights, we've got confined spaces as well. Obviously, the spaces are not always the same, so they're going to different sites, working at different sites, and being able to assess the sites and work safely in different sites is a skill in itself, right?

Rae Grech:

Yeah. Obviously the fatal is the electrical.

Michelle Ockers:

Electrical hazards, yep. Yep. Typically how are health and safety procedures being developed?

Rae Grech:



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I had written them up based on the work tasks as well, but also based on standards and codes and guidance and materials.

Michelle Ockers:

And what about training? How were they being trained at the time?

Rae Grech:

That was really by issue of toolboxes that were expected to be delivered during pre-start meetings, and SWMS and sign off on the SWMS that they had read and understood. SWMS is a safe work methods statement, so it really is the written methodology of the steps and processes that the workers implement to complete the task from start to finish.

Michelle Ockers:

Okay.

Rae Grech:

With that, the hazards associated with each step, and the controls and the initial risk factors and if the controls have brought it down to a residual risk factor that's acceptable.

Michelle Ockers:

And how long might one of these SWM documents be that the workers were being asked to read?

Rae Grech:

There might be a fair few steps in the process. Then there were reference materials and training registers and equipment and plant registers, electrical registers attached to it. So, the document itself was trying to cover all aspects from start to finish of the process and to make sure that everything was [inaudible 00:10:19].

Michelle Ockers:

And the toolbox talks, of course, were being verbally delivered at start of shift and so on?

Rae Grech:

They might have been delivered to contractors, because the labour force was contractors, for them to deliver at their toolboxes.

Michelle Ockers:

So, David, in terms of how Rae has described procedures being developed, training being done, procedures being communicated, has that been fairly typical of your experience in the construction industry and what you've seen?

David Broadhurst:

Yeah. Sadly over the years I've seen that process become overly burdensome for the guys on the ground who have to implement these policies and procedures. The root cause of the incident that brought about me feeling that we had to do something about it was my biggest challenge as a supervisor when I had to run toolbox talks and pre starts and inductions, I was just watching guys glaze over. So, yeah, for me there was no knowledge transfer

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through that process. When we had the incident, the guy that had the incident, and he was lucky that he didn't get killed, right? It was mostly luck than good judgment. But bottom line is he said, "Look, I signed the documents, but I tried to read it, but I don't comprehend what I'm reading."

David Broadhurst:

So, straight away there's a disconnect, and that was the bit that for me it was like, "Well, let's go right back to basics. How does a person in these trade-based industries, how do they learn their trade?" They learn it by watching and doing, not sitting and reading, and so there's got to be a way that we can actually communicate more visually what good practice looks like rather than relying on written documents, because that's where there seems to be a gap between workers imagined and workers performed.

Michelle Ockers:

Yes. You alluded to that earlier, Rae, as well. You talked about going out and doing auditing. So, apart from writing the process, going out and auditing and seeing people doing something different to what was written on the paper. It's not necessarily that they're deliberately trying to do the wrong thing, and it may be that what's written on the paper is actually not the best way of doing it and they're just adapting, right? So, you're picking up these differences in practice. Typically, what were you doing when you went out and you audited and you saw something being done differently to what these safe work practices were saying? Where do you take that as a health and safety manager?

Rae Grech:

Obviously, there's always review and improvement that goes on. I was taking photos and turning the SWMS visual, so a little bit of description around the photo, but not too much because the photo was showing the expected behaviour and safety practice on site. Then I was looking up, I was actually researching online about who can deliver training in this way. There was a Google article that came up and David's name was there. So, I think I stalked you and looked up [inaudible 00:13:45] at the time. He came to the factory at the time, and I said what I wanted as an outcome. I said, "I want a SWMS that is pretty much all visual, no words." Then he pretty much flushed at me these QR codes on a lanyard and said, "Well, this is what I see as a SWMS." From there all the rest is history, I guess.

Michelle Ockers:

So, you had an idea in mind for where you wanted to take it to help solve the problem, which kind of leads us nicely into talking about the code safe approach, which is kind of a three-step approach or system, you call it, David. Can you talk to us at a higher level about what these three steps are?

David Broadhurst:

Right. Well, the methodology that RMIT helped us develop that can have the most impact in an organization is coaching. It's that frontline communication coaching that we can draw out the tacit knowledge from the workforce that have got the experience. Then through that coaching and that collaboration, then the second pillar is media. How do we then capture that tacit knowledge from the workforce and put it into a visual format that can be comprehended by everyone, no matter what their language and literacy level is? Then the third pillar is the technology platform that we have to build to make that visual information available on demand right at point of task, because there was plenty of software systems out there, but we didn't have that mobility component that a guy just before they step into doing something, they could get a quick visual refresher that we could help him or her make a

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better decision on how they would do that job safely. Those are the three pillars, so it's that frontline coaching, it's the media component, and then it's the technology delivery mechanism.

Michelle Ockers:

Excellent. I think you touch on some things that we're seeing as increasingly useful in learning across a range of spectrums with mobile learning and that point of need that people can get to stuff just when they need it as well as obviously you're taking them through an induction process. You mentioned RMIT there, David. What was the collaboration with RMIT? Can you talk to us a little more about that?

David Broadhurst:

Right. Well, we were lucky enough to win a Work Safe Victoria award back in 2013, and then we were recognized in the national awards through Safe Work Australia in 2014. On the back of that, one of the people at the regulators department said, "David, we don't think you know what you've come up with, because we think you've come up with a game changer, but you need to work out what it is that you've developed that has the most impact." So, the regulator introduced us to Professor Helen Lingard from RMIT, because Helen runs an heads up a team within RMIT that evaluates systems within construction to work out are they just fluff and bubbles or do they have an impact. And so we were introduced to Helen and her team, and they actually came and did an evaluation and some research on the methodology that we'd developed around a participatory approach to developing visual procedures, and their main research paper is on what they found. They helped us hone our service offering, because they said, "Look, you're doing a lot of different things, but these are the three things which we developed as our pillars." They helped us identify what those three things were through their evaluation process.

Michelle Ockers:

So, you were able to refine your process as a result of them looking closely at what you were doing and what was working. One of the things that's really of interest, strong interest at the moment in learning and development broadly is evaluation and using evidence and data to understand the effectiveness of what we're doing. This is a really nice example of that, so I thought it was worth highlighting for listeners. And to let listeners know, we've got several papers that are being written, including some academic papers, about the work, this approach and why it works and what works about it, which I think are really interesting to dig into. Let's focus on the process you guys went through. I think accessing ceiling spaces is a story we want to talk about today. Rae, how did you decide what work procedures you were going to work on with David?

Rae Grech:

It was basically the high-risk activities in the SWMS and our fatal risks. We developed eight videos.

Michelle Ockers:

Let's talk through the steps, and I don't know at the time that you did this work, David, you hadn't been through the RMIT thing yet, so I think the process may or may not have been quite the same as it is now. We all continue to refine our processes. Was your first step to

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start scripting the film, or was there a step that you started with before that in the case of the ceiling spaces?

David Broadhurst:

Yeah. Well, I think what we wanted to do, Michelle, was to basically bring SWMS to life. So, we figured, well, if you look at a safe work methods statement, it's all set out step one, step two, step three, step four, step 25, step 26, step 27. So we said, "All right, well let's see how we can just follow the model of a SWMS, which is following steps so that we can show someone how to do something as a linear process, because that's how our mind works." So, in the early days, we would just take a SWMS or an SOP, a guidance note, and we would basically just replicate in a storyboard what it said in the SWMS, and then we would just put some narrative around it so that we weren't actually communicating it bullet point. When you look at research, people engage with a story. They don't necessarily engage with information. So, in the early days, we would just take the SWMS and we would say, "All right, out of these 27 steps, what are the top five?" Because we started looking at, and I did a lot of research obviously as we were getting this company up and running, to look at, well, what's our cognitive load? Right?

David Broadhurst:

If we introduced more than five steps to someone, we can only retain about five anyway. So, we say, "Well, what are the critical three to five steps that we need to pull out of this SWMS to put to the short three, three-and-a-half-minute video?" Which meant for some organizations we had to create multiple videos or visual procedures that would tell the whole story of the SWMS, but we would break it down for the organization into little what they call micro learning bites that we could help people compartmentalize the critical information so they could recall it easier once they got back into the job site. So, the process back then was very much, "What's in your SWMS? Let's bring that to life using a bit of this psychology around what we have the capacity to remember so that we can equip people better."

Michelle Ockers:

So, you've created a script based off the SWM itself, and then you've had it reviewed. Who was involved with the review?

Rae Grech:

I, for example, would draft up the script, and it wasn't just the script. A lot of it was about what type of shots are we going to take? And then the words would just support the visual that was looked at. Then we would consult with the guys. I actually would hand it out and I thought, "I've asked the guys to review it in their own time, I'm going to get nothing back." In fact, I got great suggestions and things that weren't thought of to include in the process that had been missed but that they had come up with. So, that was then included in the script, and then it would be performed. For example, in the performance of the ceiling access, there was a procedure around how to access the ceiling using a ladder when it got stepped out on site, no wonder they didn't follow it, because you physically can't manoeuvre yourself into the ceiling space manhole with the ladder and setup described as it was. They would sign off, yeah, yeah, yeah, but they would then go and do it their own way.

Michelle Ockers:

Right, right. And you've no way of knowing that, right? From just reading it. It's only when you got on site and you were watching them actually getting ready for the video shoot that you could see.

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Rae Grech:

Yes, and it's step by step. Then it would show up in the video that that does not look right. So, we would review the video, and it was more so in the reviewing of the video that the improvements were made.

Michelle Ockers:

So, were you on site when the filming was done, that first round of filming, Rae?

Rae Grech:

Yeah. I was behind the camera, pretty much.

Michelle Ockers:

You were taking the video footage?

Rae Grech:

I had been taught how to, yeah. I had undergone the training to take the video.

Michelle Ockers:

And I'll come back to that question in a tick, David, about how you prepare people to actually produce the videos. So, you're doing the filming and then you're watching the video back later. At what point did you realize there was an actual issue with the process as it was written, that it actually wasn't viable, it didn't work?

Rae Grech:

It's funny because as you're looking through it through the lens, it brings up things larger than you would perceive it just in the throw of work.

Michelle Ockers:

Yeah, like what people are actually having to do.

Rae Grech:

[crosstalk 00:25:13], for example, because a straight ladder couldn't be used because it would block up the access space at the manhole point itself. Manholes typically weren't structurally sound, and they were just there for the sake of allowing some sort of access point in plaster ceiling, but they weren't really supported structurally.

Michelle Ockers:

For the work weight bearing, right?

Rae Grech:

That's right. So, you couldn't really, even if it was big enough, lean a ladder into it and then step off onto it safely. Then they were trying, so that they didn't encumber the manhole space, to use an A frame. But of course the rules around the use of A frame, you can't get above the second rung below the top plate, and you certainly can't stand on the top plate, but that was the only way to get into the manhole space, so that's what showed up glaringly. There was no way of doing that as per the code of practice.

Michelle Ockers:

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Okay. So, you halted filming and you went and often looked for a safer solution. Tell us about the new solution and how you identified it and trialled it.

Rae Grech:

Well, obviously it took a bit of trying to work with even builders in making the manhole bigger, making the manhole structurally sound, so we challenged them on that. It did make it to a forum of the top 10 national builders for them to discuss and review. There was no requirement for that in BCA, so they're working to the BCA.

Michelle Ockers:

What's the BCA, sorry? Is that a piece of legislation?

Rae Grech:

Yeah. Well, it's a code, so the building code of Australia.

Michelle Ockers:

Okay. It feels like there's two issues here. One is the ladders themselves, and then the other is the manhole and manhole structures. Now, ladders feel like something easier to solve. You can go away, you can source new ladders, right? And equip. No, it wasn't? You're shaking your head.

Rae Grech:

No. I mean, if you look at ladder companies, they've got straight ladders, they've got A frame ladders, they've got platform ladders. None of those were going to offer a solution where you could step off safely into the manhole space, and that's what the code talks about.

Michelle Ockers:

Yep.

Rae Grech:

So, then we had to look at, okay, how do we go to manufacturers to ask them to design? Then they've said they had no need to. We started looking at industries that catered to fruit pickers, for example, and getting into tight spaces between branches and almost being self-supporting where it didn't have to lean on a structure. They were quite unusual designs. Then we went to the manufacturer who was in New Zealand, and he was a retired engineer almost, so we didn't know if we were going to have to have an ongoing need for this. Was the supply going to be there? He was very reluctant to release his design patent, so it was only going to be working with him. Then we said it had to meet these AS NZ standards, so he had to go back to the drawing board and design something. Then it got trialled, it got shipped out here, and it didn't work. It was heavy.

Michelle Ockers:

Did you end up getting a new ladder, or did you solve the problem in a different way?

Rae Grech:

With the constraints, we worked out a way that we were able to access the manhole with a A frame, so we didn't want to go down the path of the A frame, but we ended up doing that, and the A frame had to be a certain height to allow a step off from a certain height, yep.

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Michelle Ockers:

Who was involved with coming up with that solution at the end of the day?

Rae Grech:

Lucas and myself.

Michelle Ockers:

Yep. So, the worker participation is kind of a critical part of this whole story, right?

Rae Grech:

Oh, absolutely.

David Broadhurst:

That's right.

Rae Grech:

Yep. They ended up pitching in, it was brainstorming, pitching in ideas about what would work and hashing that out and then trialling it and trialling different types of ladders and the ability to manual handle those and the adjustability as well. I mean, innovation keeps coming into the ladder manufacturing industry, so we see that. But we still do not see something purposely addressing access through a manhole.

Michelle Ockers:

So, it sounds like there's still an opportunity there in the ladder industry, right?

Rae Grech:

Someone will make a fortune out of it.

Michelle Ockers:

Yeah. Maybe we should be talking about ladder manufacture. David, I think this is a really nice point to circle back to that first pillar that you work with, which is coaching and collaboration to draw out tacit knowledge, because here we've got an example where there was participation in trying to find a solution when there wasn't an obvious easy answer to address the risks that have been identified during that first round of filming. Can you talk to me either through this example of your involvement or how you have evolved your work over time to effectively draw out what we keep referring to as tacit knowledge? Give us an example of that.

David Broadhurst:

Yeah. I think what it is, and what RMIT helped us understand was because, and Rae mentioned it, when you're looking at things through the lens of a camera, you see a different perspective on things. RMIT found that it was probably the best gap analysis process an organization could ever go through to improve their procedures, policies and processes, because you can't hide a gap in a process in a visual procedure like you can a written procedure. My dad built a large construction business in the UK, and he always drilled into us when we were kids, he said, "David, if you ever want to find a solution to a problem on a job, go and talk to the guys who are the closest to the problem first and work your way back from there."

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David Broadhurst:

In my construction career as a supervisor, I always remembered that, that instead of telling the guys what to do, I'd ask them how they thought we could best do it. I think just changing how we approach engaging the... because a lot of people have got some phenomenal ideas and some phenomenal experience and were really great at improvising, right? But a lot of times that's seen negatively by an organization, whereas if we learn how to harness that through the right collaborative conversations and asking the right questions, and probably more importantly, creating a safe environment for the people to answer the questions honestly, we can draw out some really great learnings for industry to benefit from, not only around safety, but quality, rework, de fit. The whole lot, if we learn how to engage with our subject matter experts better at the cool face, we can really address a lot of these issues that we're seeing right now across industry, which is that skills gap.

Michelle Ockers:

So, how do you create an environment where people who gave just been maybe signing off on procedures without really understanding them but then doing something different because they've figured out what works in the situation and they've adapted and improvised, and no one goes out of their way to do things unsafely, so it may be in some cases what they're doing is actually safer than that's written or is just the only way it's viable to do it. How do you work with people, David, in your experience, to shift the environment or make sure they feel safe and open to say, "Well, here's what's really happening. Here's what we're doing and why."

David Broadhurst:

I think what we've done, Michelle, we've developed a framework within our methodology that RMIT helped us work out, to say, "Well, look, we want to give workers autonomy on how they do the work." It's going and just saying, "All right, well, show us how you do that. Why do you do it like that?" And just ask a lot of why questions and probably reassure people that there's no right or wrong here. We want to learn to improve how people do the work that could possibly benefit from the experience that you've got. So, for me, it's about how do we value and honour people who have got a wealth of experience, that we can help transfer that knowledge and experience into the next generation of people doing the work? As soon as you start honouring people and valuing their knowledge, whether it's academic or whether it's tacit, it's amazing what people will share with you, because they want to have an input. Right? They want to feel like all their experience has got purpose. It's just helping people that are especially frontline leaders and people that maybe don't have the hands-on experience, it's how do we have those conversations that there's no one person any more valuable to the process than the other. It's providing that collaborative process that we get a win win for everybody.

Michelle Ockers:

So, Rae, how did your people respond to the process, like being invited to help redesign the process as part of the video production or getting ready to actually produce the videos? What was their reaction?

David Broadhurst:

Well, obviously they could see the stakeholder engagement was taking place with suggestions from themselves as well going to them.

Michelle Ockers:

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Understand, understand. David, let's go back to the actual production process. You've got a script. Now you go through a process where there's more coaching, collaboration, examination of the process rather than just writing it from a written procedure. You've improved the process in that way. Who's involved in filming? I think Rae said she was actually the person behind the camera in her instance. Is that typical? Do you get people from the organization you're working with to do the filming? Who else is involved in filming and how do you prepare them?

David Broadhurst:

Well, we have a full media team within our business now. But our model is to help organizations adopt this methodology just as a natural extension of how they would develop a written procedure. We want it to be an internal initiative, not an external initiative, because that means that it's sustainable and it's more cost efficient. So, what we would normally do, once we've got the storyboard to where we feel it's as good as it can get with the right level of collaboration, then we would have our media team come in and coach people like Rae, "This is how you capture the footage, this is what you need to be aware of." Just some basics. We're not going for an Oscar winning production here, but it's helping people understand the basics of how to capture good footage that's more like a CSI crime scene type scrutiny, not a panoramic Dances with Wolves production, because we want to get into the detail. We want to get into the nitty gritty of how do we do this that we can show people the key steps to remember, that we can share this with anybody, and they can adopt it the same way, so we can get harmonization and consistency across large organizations?

David Broadhurst:

So, like I say, we come in, we spend a day giving people some coaching, because we just provide a little Sony handy cam. We don't need anything special, because we do all the post production work in house for organizations, so we can add the graphics, we can do it. We do all the voiceovers, so all the technical component to it, we can provide that as a support service. But I talk about putting together a peach and pear. Right? Because the best team that we've seen developing the footage is somebody from an office background and somebody from a field background, because somebody like Rae has got the technical knowledge around codes, legislation, things like that, and probably more...

Michelle Ockers:

Well, you've got two different types of subject matter experts working on this. Right? Bringing you two different sets of knowledge.

David Broadhurst:

Exactly, yeah. So, it's having somebody like Rae coming in from an office based background that's good around technology and the academic learning, but then putting her alongside a supervisor or a team leader that's got the relationship with the field guys but also the tacit knowledge to help make sure that we're capturing what we need to be capturing the right way, that it makes sense to people. So, having those two people together, and with Rae, we trained up three or four people in the business that we could start getting some replication happening. In other organizations, we've gone and trained up people that they've got teams all over Australia where they're all contributing to their visual body of knowledge, as they're calling it, that we've taught them the basics on who to put together to bring those two skillsets together, that we get the right blend of academic knowledge and tacit knowledge really sort of bouncing well off each other.

Michelle Ockers:

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David Broadhurst and Rae Gretch – Harnessing Tacit Knowledge to Make Work Safer Hosted by Michelle Ockers

So, you found a way to scale this across the organization and make it sustainable. Do you ever work with people from training teams or learning and development teams?

David Broadhurst:

Well, to me, we can't silo this. We've got to work collaboratively. There's a skillset that people with a training background can bring to the table as well as a skillset that the OH&S or the WHS team can bring to the table, that we've got to find that blend. Larger organizations, we work with both the HR team around improving their inductions, onboarding ongoing training, we also work with their safety teams around meeting legislative requirements around safety, we work with their quality teams, we work with their comms teams, so that's in a large organization. What we've tried to do is provide a solution that isn't a siloed solution just around health and safety. It's a communication solution that can be basically used across any issue or any learning that the organization needs to provide their workforce. Even some smaller organizations don't have a full-time designated OH&S person. They might have a HSR or they might just have a part-time consultant that comes in for smaller businesses. So, I think we've been lucky enough that we can scale our model to whatever resources the organization's got internally that we can provide any missing pieces that they might not have as a dedicated resource.

Michelle Ockers:

Okay. So, it just depends on the organization and who needs to be involved in the collaboration. So, once you've got the videos, David, where are they hosted and how do people access them?

David Broadhurst:

Well, we say that the third pillar of our solution is that technology platform. That's called QIN, which stands for quality information now. When we first set the business up nine years ago, we were looking at, "Right, well, we know we need to be more visual in our approach to providing information, but we need people to access it at point of task." There was really nothing out there that we could do globally at that stage, so we said, "Well, in for a penny, in for a pound. Let's see what we can build." So, we were lucky enough to work with a software company that are now partners in our business, that they helped us build a fully mobile communication platform that can pretty much integrate with anything. So, we just basically take those visual procedures or visual resources, and we can embed those visual resources into forms.

David Broadhurst:

It might be, maybe as an example, an organization has got a confined space process. We can embed the video on how to run a confined space project safely, we can have that visual procedure embedded into the form as part of their permit to work process. So, we can educate and verify in a linear process so that the worker doesn't have to jump in and out of different apps and different platforms to do his daily tasks. We just looked at what do we need to provide that it can be a positive end user experience based on the fact that most people, and I think statistics even now are 82% of people out in the workforce today, they are still intimidated by technology.

Michelle Ockers:

So, when you say embedded, it's QR code based is how you embed into documents?

David Broadhurst:

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Well, we can use QR codes, but we've gone way past QR codes. QR codes is one mechanism for people to scan a QR code on a sticker on a machine and get a quick refresher on the isolation process or whatever information we want to provide through that process, but what we've developed the communication platform into is a mechanism where someone might get inducted into an organization, and part of that induction is providing all the relevant information to that individual, that they've got it accessible on their device at any time through a link. So, we can load up digital forms, so there's multiple ways that we can provide that information that we wanted to give them quick and easy access to it, that we've got both formal and informal learning working together for us simultaneously, because that's where we found that there's a missing link around that there's no shortage of information, but it's how quickly and easily can people get to the information that if they can do it just before they perform a task and it's part of that process that they have to follow to undertake the task, there's less chance people will circumnavigate that process.

Michelle Ockers:

So, the videos, there's additional content hosted with the videos, and is that always hosted on your app and it's a matter of getting to it in the app using a link, or do you have organizations you work with who will host it somewhere differently?

David Broadhurst:

Yeah. Well, if an organization's already got a good mobility solution, then we just look at how we might need to create a link between the two platforms. It might be that some organisations say, "Look, we are happy with that we're using, we just need you to help us create the visual body of knowledge." For us, it's not either or, it's both and.

Michelle Ockers:

Got it, got it. I think you've got a little demo act that people can access. I think we can put a link in the show notes to that, would that be all right?

David Broadhurst:

Yeah, absolutely. Yeah.

Michelle Ockers:

Okay, excellent. So, Rae, it's obviously a fair bit of effort to engage people in looking at the process, scripting it, making the videos. Then I assume if something changes, the video needs to be updated. What makes all the effort worthwhile to go through a process like this?

Rae Grech:

I think the rewards and the outcomes. It pays off in ways that you don't expect. What I found, and I think it has been mentioned in previous interviews as well, is that the workers then come and seek and come up with ideas and share these ideas because they can see how the information is spread and they want the ideas that they've come up with taken on board, taken to another level when communicated. It's been rewarding in many ways.

Michelle Ockers:

So, there's a bigger knock on impact because of the participation of the workers, that you notice that they're more likely to make suggestions, to want to contribute in other ways their ideas around improving health and safety. Did you notice in the time you were with the

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insulation, firm after the Code Safe introduction, did you notice any shift in the data around incidents?

Rae Grech:

Absolutely. We had all of a sudden from no hazards being reported, everything's going on fine in our sites with the pre start, according to the contractor's tool, all these hazards and controls are being recorded, because it was so easy to record. They actually didn't have to write anything, just have to point to workflow hazards you've seen and show us how you've controlled it. It's pretty straight forward. While that was rising, the lag indicators, the LTIs were dropping.

Michelle Ockers:

So, the lost time injuries were dropping as well, so you saw a definite impact. How has picking up this approach shifted the way you work as a health and safety practitioner? What's the long-term impact been for you?

Rae Grech:

Well, I'm still working with this methodology as we speak in another company, so I just think it's brilliant.

Michelle Ockers:

Yeah.

Rae Grech:

And sometimes you need to break barriers of vision that people have at different levels, because until I see it in practice, it may not be fully understood. But yeah, now we're talking already after three years of trying to get legs, it's finally been implemented. Yeah.

Michelle Ockers:

I think that's a key point out of this story. It's not just around the video as a delivery method, it's that collaboration, drawing out tacit knowledge, improving participation is the real secret sauce here, right? The video is just a vehicle to get that going, right?

Rae Grech:

Yeah, yeah.

David Broadhurst:

Absolutely.

Michelle Ockers:

Yeah. So, Rae, for anybody wanting to increase the engagement of their workers with health and safety outcomes in their organization, what take away tips would you give them?

Rae Grech:

I think really consulting and collaborating with the guys and listening to them and getting them involved and trusting that they're going to come back with great feedback. So, yeah, getting them involved. If I hadn't given the scripts out, for example, thinking, "Oh well, they're

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not going to really come back with anything," it was probably by the third day I got something back that ended up being included in the video that no one had thought of, and this was around, for example, heat stress versus hydration and all these other controls. No one had addressed nutrition. They said, "We get hungry out there."

Michelle Ockers:

Yeah.

Rae Grech:

We started researching on hydrating foods, and that got included in the video. Yeah. The guys talk amongst themselves even more than not, and the word spread, and they could see we weren't using actors, we are using them. They weren't all employees, they were contractors as well.

Michelle Ockers:

It's just brilliant as a way of surfacing knowledge, and probably stuff that the guys talk about and pass onto each other anyway and making it visible and being able to do something with it. Right? It's awesome. So, David, in terms of tips, for anyone keen to do more with video for improving health and safety, what would be your key take away tips to get them started?

David Broadhurst:

I think engage your subject matter experts really early. We find now if you pull the right people into a room for only an hour as you're developing the storyboard, it doesn't have to be a long, cumbersome process, but if you bring the right people into the room at the right time to ask their advice on how they feel good practice needs to look, I think that's probably one. I think the other one is researching content analysis theory as a framework on how to put visual content together. And you mentioned it before, Michelle, and RMIT mentioned it as well. They said, "David, your value proposition isn't making videos. Your value proposition is how you help an organization engage their workforce in the development of creating their own visual procedures that's just an extension of what they naturally should be doing as a good practiced approach to developing procedures anyway."

Michelle Ockers:

It's kind of a means to an end. I bet you didn't know what gold you were stumbling across when you started down this path, right? After that incident.

David Broadhurst:

I had no idea. I had no idea.

Michelle Ockers:

And we'll find a good research on content analysis theory to include with the show notes as well. We'll also include links to both of your LinkedIn profiles if anyone listening to the podcast would like to get in touch with you and follow up on anything we've talked about today. Rae and David, thank you so much for sharing this story and insights with us. It's really powerful the work that you guys are doing in high risk industries. Thank you.

David Broadhurst:

No, you're very welcome, Michelle. Thanks for taking an interest in what we're doing.

Michelle Ockers:

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My pleasure. For our listeners, if you're finding Learning Uncut valuable, please take a moment to rate the podcast and leave a comment on whatever platform you use to listen to Learning Uncut. Really appreciate your help to ensure that as many learning professionals, and in that case, health and safety professionals, probably, get to hear about the great work that our Learning Uncut guests do.

About Michelle Ockers

Michelle Ockers works with business and learning leaders to realise the untapped potential of learning in organisations. She is an organisational learning strategist and modern workplace learning practitioner. Michelle works with organisations to develop and implement transformative organisational learning strategy, and to build the capability of their learning team. She delivers keynotes, workshops and webinars for learning and broader professional or workforce groups at both public and in-house events. Michelle also mentors learning professionals at all career stages on career planning and professional development.

Michelle received the following prestigious industry awards in 2019:

- *Australian Institute of Training and Development Dr Alastair Rylatt Award for L&D Professional of the Year – for outstanding contribution to the practice of learning and development*
- *Internet Time Alliance Jay Cross Memorial Award – for outstanding contribution to the field of informal learning*

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