Speaker 1: Hello and welcome to the CPA Australia Podcast. Your weekly source of business, leadership and public practice accounting information.

Jayanthi Iswaran: Welcome, everyone. My name is Jayanthi Iswaran. I'm the Deputy Chair of the Women CPA Committee. In today's podcast, I will do a question and answer session with Bill and Phil. The topic for today's discussion is, Problem Solving As a New Opportunity. Having good strong problem solving skills can make a huge difference to your career and to the organisation you work for. Problems are central to what almost everyone deals with at work on a daily basis, whether you're solving client issues both internally and externally, or supporting others who are managing stakeholders. These challenges can take many forms, from small to large and from simple to complex.

Jayanthi Iswaran: A fundamental part of every managers role is finding ways to solve all kinds of different issues. So being a confident problem solver can be crucial to you and your organisation's success.

Jayanthi Iswaran: Now it is time for me to introduce our first speaker Phil Bickerdike from LUMA Institute. Phil is an experienced instructor and facilitator of public training courses, customer research workshops and stakeholder workshops in design thinking. As LUMA's Regional Director for Australia and New Zealand, he not only delivers outstanding learning experiences for participants, but is also responsible for managing client relationships and developing human-centered design and innovation programmes.

Jayanthi Iswaran: Phil has worked in customer experience and design for over 10 years as a manager, designer, researcher and consultant across many different industries. This has provided broad exposure to the complex challenges faced by organisations. Phil is passionate about building capacity in individuals and equipping them to succeed. In particular, enabling people to see the power, value and meaning of human-entered design as a way to solve complex problems and create new futures. He loves to see the light bulbs going on, hear the pennies dropping and to share in the aha moments. Please welcome Phil Bickerdike.

Phil Bickerdike: Hi. Thanks. It's good to be here.

Jayanthi Iswaran: Our second speaker is Bill Jarrard. Co-founder Mindwerx International. As co-founder of Mindwerx International, helps people and organisations succeed through the application of critical and creative thinking to make innovation happen. In his role as Innovation Facilitator, Bill helps people in organisations to think learn and innovate better, so they achieve the results and future they want. Bill is a master of entrepreneurship and innovation. And since 2000 has also lectured on creativity and innovation at universities in Australia, Israel, Asia, and the USA. Please welcome Bill Jarrod.

Bill Jarrod: Hi, everybody. Thank you.

Jayanthi Iswaran: Moving on to the questions. How do we determine if what we're working on is the real problem, not just a symptom?

Bill Jarrod: Let me jump in with that one. I guess there's a couple of things we want to look at. First of all, what do we mean by the real problem? Because, of course, problems can be looked at in a number of different ways. Because I am focused on critical and creative thinking, I use a lot of tools and techniques and methodology. So one of the things I would do is map out a process of understanding the challenge. So there's a couple of things we can do, is very simple things. First of all, there's the traditional process of sitting back and saying, "Let's ask the five most important questions that there ever is, why, why, why and why." In that order. So the five whys is a great way to do things and you get to the root causes of that. The other thing I think is changing perspective. What we need to do is be able to look at things from different perspectives.

Bill Jarrod: So, one of the things we do, and we have a divergent convergent creative problem solving approach, and what we do is we say when we have face with a particular challenge, we would then say, "Is there any other way to look at that challenge?" And by looking at it in different ways, you can start to understand a little bit better. Good example might be, a client came to us one time and said, "Bill sales are slumping. We need to do something about it." And I said to him, "Okay, that's fine. But let's look at it in slightly different ways. What are some other ways of saying sales are lumping?" And one way of saying that is, "The customers aren't buying as much." Another one is, "The sales guys aren't selling as much." Another way is, "The competition is beating us more."

Bill Jarrod: So we got three different ways of looking at it. But why is it important? Well, the reason for it is if I say to you, "Customers aren't buying as much." Where is the focus of your attention? It's on getting the customers to buy more. If I say to you, "The problem is the sales reps aren't selling as much." Our focus might be on the sales reps and how to motivate them to sell more. If I say that competition is beating us more often, then our focus is going to be on, how do we beat the competition? So what we do is we say that problem can be looked at in a number of different ways, and no one way is the right way, necessarily. What we can do is work on all of those ways, and as a result of that, get a lot more useful ideas that we can actually put into action. So real problem, get to the root cause. But then also make sure that you're looking at it from a number of different angles, that would be a good way to start.

Phil Bickerdike: Yeah, I think that's great Bill. And I think just add to that, I think another way to really understand whether you're working on the real problem, is to really dig deep into the problem. A lot of the time we collect data from many different sources. And obviously, there's a lot of talk about big data, but I think also it's important to make a place for thick data. And what I mean by that is, there's an anthropologist called Clifford Geertz, who wrote about thick description, around really digging into the meaning for the things that we observe and giving a description of those things. And when we're looking at problems, it's important

for us to understand the reasons why these things are manifesting, I think the things we're observing, digging into that and understanding through some of those research techniques that we borrowed from anthropology, such as ethnographic research techniques, actually interviewing people. Looking at how they behave in their context is really important to understanding what is really going on here and whether we're solving the real problem.

Phil Bickerdike: Another technique that we can use is a way of reframing the problem, as Bill said that you can look at problems from lots of different perspectives. And one technique we can use is a technique called an abstraction ladder. An abstraction ladder helps you to take a problem and then abstract that to give you a broader focus by asking why? Which elevates your focus to a broader perspective on that problem. You could then also interrogate but moving down with that while asking a question how, "How does this problem manifest ? Or how could we do something to narrow down our focus in this challenge, and this problem?" So that perspective taking, I completely agree Bill, is so important with looking at problems because problems manifest at different levels and problems certainly manifest with different perspectives. So quite often there isn't one real problem that you're searching for, but different perspectives on a problem which are equally valid to pursue.

Bill Jarrod: One of the things about perspective of course, is different people will see different ways. And I forget who it was now, but there was somebody that says, "The problem is not in our logic, it's in our perspective, how we see things dictates how we're going to approach them." And often, that's where we make our mistake in trying to see what the real issues are. Once we know what it is we're looking at, we can then start to say, "Now we can use our logic and our processes to actually adapt it." So perspective is just about everything, yeah.

Jayanthi Iswaran: Moving on to the next question, what techniques do you use to look at an issue from a variety of perspectives?

Phil Bickerdike: Yeah, so again, it is talking about what techniques we can use. Speaking to people and understanding their perspective, inviting them to reflect on their experience of the problem. We can do that through interviews, through some of those techniques, we can use some other techniques in bringing people together into group settings and give them the space in which to express their point of view, and share their perspective. That's a really important part of the process, is that we don't want to too quickly narrow down our focus around a singular perspective. That we want to put together a group of people from different perspectives, different disciplines, perhaps different areas of an organisation that may have some stake within this challenge. So first in mapping out who those people are, and then identifying a way in which you can actually then invite them into the discussion to understand what their view is on this. And that providing a safe space in which people can express their view, is so fundamentally important to that.

Phil Bickerdike: Because we need to create a collaborative environment, we need to recognise that people have their perspective. And it may be different your perspective. They have their own truth as it were, regarding this particular problem and we need to acknowledge that and respect that, and express empathy towards them in that. We need to think about how do we see it from their point of view, even though it may be different to our point of view, because we will benefit from this diverse view of the problem.

Bill Jarrod: Yeah, and if I can just pick up on that. I think, again, this word perspective is starting to come into it. And when we tend to think of that, we tend to think of people having perspectives, but I think we can go even beyond that. I think that you can use levels of perspective, so there's the big picture view then there's the more micro view. So you can look at it from different angles. You might look at data for instance to just see what's going on in the data or look at the financial perspective and what's going on in the spreadsheets and where the trends are.

Bill Jarrod: So I think there's things that you can use that are factual things, might take a process view perspective, will conduct the process itself. So there's different ways in which you gather information in to be able to creatively solve a problem. People are one part of that. And I agree entirely with what Phil is saying in terms of bringing the different people in the room, creating a sense of trust and collaboration. And when you do that, there's again, critical and creative thinking techniques you can use, such as parallel thinking and lateral thinking tools to help us do that. The other challenge though, is sometimes you don't have the opportunity to bring the people into the room. And so what we need to do is ... And if we can't go out and meet them, and sometimes we don't even want to, because we actually want to get a feel for their perspective before we go and talk, because we're not ready to talk to them yet.

Bill Jarrod: So then again, other tools can be used, like a tool I use called OPV, other people's views. And so we say, "who are all of the people impacted by this, and what might their views be?" And we would then need to confirm that, but it allows us to then do the thinking. And in thinking processes, it's always about what can the group of people in the room do in the time that they have, right then and there? And we don't always have the luxury of having everything we'd possibly want. So we can use tools and techniques to start thinking outside of our own experiences in some cases. So perspective I think comes from a number of different angles. I like to see pictures, I like to see numbers, I also like to see ways of getting information from people, particularly using good thinking tools to do that.

Jayanthi Iswaran: Talking about perspectives and data collection, leads us on to the next question. When collecting information about a problem, very often it is necessary to interact with multiple stakeholders, how can this process be made as smooth as possible?

Bill Jarrod: Well, I've said this before, just put a dictator in the room and let him make a decision. But clearly, that's not what we're talking, that's not the way we have. Again, collaboration is something we need to do, there's no question about it. We're in an environment that's interconnected. When you look at organisations, very few organisations do everything themselves. So they've got to work with customers, with suppliers, with partners, et cetera. Inside organisations, cross-functional teams are working. And there's always going to be particularly for complex problems, they're going to be a number of stakeholders in that process. So how do we actually get them to interact? One I think, is make sure that we understand why they're interacting and that the people in the room need to interact, and what we're expecting them to interact to accomplish.

Bill Jarrod: So what is the goals and put together? And then I think also you have a concept I've said, are there any methods and techniques we can use to actually get them to collaborate, get them to interact in effective ways. And again, critical and creative thinking techniques provide a lot of that detail, a methodology to actually pull things together. So working through a methodology such as a divergent convergent creative problem solving approach, because we're talking about, our problems, opportunities, and the answer is absolutely yes. But just talking about problems is not going to get them solved, we need to have a method to work through them. So I would say develop some tools, techniques, and there are lots of them out there. One of the things I might do is to put on the show notes, is a little model of the divergent convergent model, so people can actually see one of those methodologies.

Phil Bickerdike: Yeah, I think when you're working with multiple stakeholders, it's primarily important to identify who the stakeholders are, and what stake they actually have in the problem that you're identifying. So really, a good starting point is to actually do an activity called stakeholder mapping, where it's a process where you visualise all of the different stakeholders that exist within the system of this problem and what their interactions are. What stake do they have in this? What are their motivations? What part do they play in this complex ecosystem that's related to the problem? And that is a really effective way of actually bringing together your understanding of who's involved, but then also engaging other people to provide their point of view. So once the stakeholder map has been visualised, it becomes that artefact where people can actually have a conversation around that, and identify where they fit in with the big picture, how they related to this challenge, to this problem.

Phil Bickerdike: Again, touching on that point I made previously about creating a safe space where people can feel they have the opportunity to express their view. So when we're working with multiple stakeholders, trying to provide mechanisms through which people can express what their view is and then we can hear that, and we can take on board and respect their diverse opinions, diverse perspectives. Putting in place those mechanisms, helping people to make that meaningful contribution to working together, as Bill said, that creating a collaborative environment is really vital to helping those interactions with multiple stakeholders run really smoothly.

Jayanthi Iswaran: With multiple stakeholders, you have differing views, how do we balance differing views when trying to achieve a solution? Also, how would you manage potential conflicts between a solutions effect in the short term versus the long term? Given that we are incentivised for the short term.

Phil Bickerdike: I think that certainly we have short term incentives, short term requirements, people want to see tangible progress demonstrated, in a short term. And that can be difficult to balance with obviously, a long term objective. So, one way in which you can achieve that is through trying to bring to life what it is you have in mind in the future now, in a way that becomes tangible and testable. One technique we use to do that, it's called prototyping. And what we mean by prototype is bring to life your idea, or your concept for a solution early in the process, and then run an experiment with that, to try and test, "Am I on the right track?" This actually serves multiple purposes, but primarily allows you get feedback early in the process to understand, "Am I on the right track?" Even though you may have a long term goal in mind that you can then deliver results in the short term, that you can actually show that you are on the right track, and it helps you to respond to change more quickly as well.

Phil Bickerdike: Because it's hard to know what the future may hold. So how do you ... By prototyping that's a way in which you can actually then start to get an indication of whether you're on the right track or not. And so that's one technique we can use to try to get that feedback in early. The first part of the question, I believe was about people's different views on solutions. So that again, by acknowledging that people have a different point of view, a different idea, if we can find it, again, using prototyping, I can bring to life multiple ideas relatively cheaply, relatively quickly. So that we can have a number of different competing ideas for solutions and test them out and see, which is the most successful.

Phil Bickerdike: So what I'm doing there is acknowledging your idea and not shutting it down. I'm encouraging that to give it a chance. And what we're doing there is that we're trying in multiple different things. It's like having a portfolio rather than putting all your investments in one area, you look at how do we how do we think about creating a portfolio of ideas? Portfolio of things that we can move forward with. So that we can prove the successive, these different ideas and then get some early feedback on what that might have, what implication that might have in the longer term. So you're meeting that short term requirement with a view to the longer term.

Bill Jarrod: And picking up on that idea of the prototype, which I agree with 100%, there's a term you're using these days, excuse me. In terms of entrepreneurs in particular, and to talk about that minimal viable product, or minimal viable solution. So what you do is you take it just far enough to say there's something here. Now let's take it to market and see if it flies, and then we go to the next step, and then we go to the next step. So you're only developing those things that are actually being picked up as you go, and it's the speed to market that you're trying to get to. So I think that's part of that process. As far as the short and long term perspective goes, we're always going to be challenged with short

term and that is where again, we need to be able to visualise where it is that we're taking things, and that comes at two different levels, I think. In my case, if I'm working with a board or an executive team, I might be talking about short or long term solutions for the organisation. Five, 10, 15 years out. Work with defence and we're looking at things 50 years out. So there's long term views.

Bill Jarrod: On the other hand, there's people at the grassroots, who a short term fix might be just to fix the problem, rather than figure out what's causing the problem and fixing it entirely. So that it's actually improved to a point of going ahead. So what we've got to do is actually sit back and analyse if we do these things, what it's going to lead to, and how do we actually ensure that what we're going to accomplish over the longer term is actually what we want. And I think we've got to do that, we have infrastructure and a whole range of other things. We're seeing so much short term thinking of answering today's needs, but by the time today's needs are solved, tomorrow is here, and now we got to work on it again. And we see that in highways, we see that in all sorts of things.

Bill Jarrod: So balancing the long term, we've got to see both, acknowledge that we need some wins, but also make sure that we are understanding that those winds are not giving us, a loss in the long term as a result of that, and that takes analysis and leadership.

Jayanthi Iswaran: Problems may be complex, complex problem solving lends itself to endless meetings. Without proper analysis, we risk making a rash, possibly ill-informed decision. How have you managed to get the right balance?

Bill Jarrod: Yeah, well, this has got two parts. We had a discussion on this before, of course about, does complex problem solving actually lead to endless meetings? And the answer is, in some cases it does. But, and Phil and I, I think we know it, we talked about this, it's a case of complex problem solving requires new skills, new ways of looking at things, artificial intelligence, big data analytics is going to be involved, collaboration across a range of things, it's not going to happen in meetings, in many cases. And I think we need to just embrace the technologies and the trends that are coming along to actually look at complex problem solving in a different way.

Bill Jarrod: That's part of that. So that's the start. Having said that you're always going to have these meetings that seem to go on and on. And what we need to then do is find a way in which we can construct those meetings in an effective way. And again, I come back to the idea of critical and creative thinking to be able to do that using techniques and methodologies to pull it together. And I know Phil has got some thoughts of his own on how you might work that.

Phil Bickerdike: Yeah, absolutely Bill. I directly said before, I don't like to have meetings, I actually say, stop having meetings, I say, have workshops instead. And what I mean by that is that, how many times have we been to meetings where it just seems like a waste of time? Because it's just people talking. If we reframe the way we think about this, when we come together as a group, we have a clear

purpose around why we're coming together, we have a clear outcome in mind and actually think about what is it we are going to produce in this coming together? How are we going to make this a productive time? So think about how do we how do we visualise our thinking, how do we actually create some artefacts that carry forward the progress of the challenge that we're dealing with, so that we don't get into this cycle of endless meetings, and things just seem to spin wheels, which can happen a lot in organisations. And I've certainly been a part of that in my time.

Phil Bickerdike: And so it's really important to try and find a way to actually be productive in those occasions. Time is precious. We don't want to be wasting our time when we come together. And that by actually externalising our thinking, using that visual behaviour can drive further collaboration within the team. Because then we understand each other's perspective. And we start to build that shared understanding and can start to solve a problem.

Jayanthi Iswaran: Talking about creative problem solving, do you have any examples when you've used a more creative approach to get solutions? How do we sell a solution to those that will make the final decision? How do we approach this if our solution has a high cost or is a more complex to implement, but will have the best long term impact?

Phil Bickerdike: So I suppose there's two parts to this question. The first one is, how do we use a creative approach to get solutions? And there is a range of different ideation techniques that you can use to actually stimulate your creativity, and to generate more ideas and to generate better ideas. One that comes to mind, and of course, I'll share this in the show notes as well, is a creative matrix. A creative matrix is a framework that you can use to actually structure your brainstorming activities. Brainstorming can be really effective technique, but it can be implemented poorly, and there are certain pitfalls that can with poor implementations of brainstorming. And unfortunately, it can sometimes devolve into a talk fast, where people are just talking about things and nothing is really tangibly captured. Or it can result in groupthink as well, where people start to be swayed by the discussion or opinion of others.

Phil Bickerdike: The creative matrix is a technique and a tool that we can use to actually generate diverse ideas. And the way it does is through the intersection of different categories. So by introducing an intersection of categories between a category related to people, and a category related to a solution, can stimulate creatively a solution to a challenge. And by providing that framework, by providing that structure actually stimulates that creative thinking, actually encourages to generate more ideas than being faced with a blank page. And the other way in which we use the creative matrix is to document ideas visually. So we asked people to write down or draw their idea individually on post-it notes, and actually share that in a visual way.

Phil Bickerdike: This also stops us from getting to the mode of just endlessly talking about things. So in terms of generating ideas, and generating a lot of diverse ideas to

solve various challenges. And that's a really powerful technique that you can use. When it comes to selling solutions, and selling your ideas, another technique we can employ is a concept poster. And the concept poster is a way of actually illustrating and creating a vision of the future, bringing that into the here and now. So again, some of the clients we work with, have started to adopt this approach to their new initiatives, when they're looking for new initiative funding around projects. Rather than putting together lots of words around a business case, or lots of slides, which is typically the way large organisations communicate ideas, by adopting this approach too, it's a structured way of actually articulating the key points around an idea and illustrating in such a way, so that brings it to life, so then can really connect with that. Because sometimes we try to sell a vision of the future, we can be misinterpreted, it can be unclear, people don't really buy into it.

Phil Bickerdike: So by actually trying to again, use some of these visual techniques like a concept poster to actually articulate how this idea is going to work in the future can really help to get by and support for that idea. And it provides you that in a structured way. So you can make sure that you are covering off at all the key elements of that idea. Be it, what's this going to cost? Or how is this going to be implemented? Or what's the timeframe here? What's the success metrics? All those sorts of things, you can cover off in a structured way, and communicate that really clearly, really effectively. So your audience can clearly understand what it is that you're asking them to buy into, and then give them an opportunity to offer some critique for that idea, offer some feedback on that idea, or to in fact, support your idea.

Bill Jarrod: Yeah, from my point of view, of course, the creative approach is what Mindwerx focuses on. So trying to come up with solutions, by using techniques from Edward de Bono's lateral thinking, for instance, is a good way to start. So there's a range of tools and techniques, it's really about, we talked about perspective before, and perception and changing the way we see things I think, is the important bit and it says, I've said many times if I can help you to see something that you haven't seen before, or see things in a way, you haven't seen them before, that might be useful. And so if that could be useful, and that's what we're trying to talk about, and that gives us that creative approach, we're moving off the traditional path to new pathways. So there's a whole raft of different techniques to basically do that.

Bill Jarrod: One of the things that's really interesting is selling ideas, we actually have to sell ideas using creativity, because what happens is implementation is almost the hardest part of any process, ideas are dead easy, solutions are pretty straightforward. Getting them successfully implemented is the hard part, particularly if they're complex, or at high cost. So what we need to do is embrace methodology, I think, in some cases, to be able to justify what we're doing. So the nature of critical thinking for instance is that you can map out how you're going to do the thinking, in order to show how you came to the reason conclusions that you had, and be able to explain them in a reasonable and effective way, that's the nature of getting complexity across.

Bill Jarrod: The other thing about it, again, it depends on what level you're talking, if you're talking about very strategic things at senior levels, then that's a facilitated approach, much like Phil is talking about, et cetera. At a grassroots level, we might want to get things put through. And one of the techniques that have been used for many, many years is getting people who have come up with a solution, but now they got to get the implementation done, is what pathway do they need to take to get that approval. And again, we're not talking here about the usual sign offs approach, we're talking about before they actually get out there. And so we sit back and say we've got this solution, but in order for us to get this we're going to get ... Finance has got to look at it, people have got to look at it, there's a tech issue to do it.

Bill Jarrod: So what we do is we go and lobby those people, maybe involve them in the project, particularly if it's a complex one, involve them in that process. And then before we start to present it for approval, what we do is, we've actually got all the boxes ticked, we've got everybody on site. In my early days, doing a lot of continuous improvement work, I was responsible for big IT projects, and I would have to bring a group of people, that'd be the operations people, the technical people, the developers, the designers, the auditors. All of these people have to come together, and they would have to all agree before each stage of the project can move forward. And certainly, before implementation.

Bill Jarrod: Well, the only way we could do that is off course we can bring them together, what I then needed to do is get them all thinking on the same page, at the same time. So that's where, again, thinking techniques like parallel thinking, start to come into play on how we might do that. So I think there's methods that we can do. And again, for me, it's always about if the things have been well thought through, then you can demonstrate where you're coming from. And if there is no benefit, if the cost benefit isn't there, then don't reject it, modify, change it, look to what we're trying to do. We need to adapt some things to there, so they can get part of it.

Jayanthi Iswaran: Do you have an example of a problem with an unsuccessful solution? What did you learn from the example?

Bill Jarrod: Oh, I've never had an unsuccessful solution. Actually, when you think about unsuccessful solution, how can it be a solution if it's not successful. But have I had unsuccessful attempts? Yes, lots of them. And at every level, I think, we find things and stuff happens. And again, the idea is, part of being innovative, part of being creative, part of being successful, is trying things and, and working on them and learning from them. I think that's part of that process. So we try something, if that didn't work, then we try something else. If that didn't work, we try something else. And it's that approach, I think, that philosophy that people need to take. And we learn from everything we're doing, I think that's the key element, we learn about what worked, what didn't work, and how that happened. So I think that's part of that process.

Bill Jarrod: The other thing, I guess, is about sustainability. How we actually persist and keep pushing things through. There's lots of examples of entrepreneurs that have done things. And it was on the 147th presentation and pitch that they did, that they finally got it successful. So these guys look like overnight successes, but 146 people had rejected them before they got there. So persistence is clearly something that you need to do to get it. So at what stage do you call something unsuccessful, and in many cases, it's unsuccessful today, but you try it again, tomorrow, you keep pushing, and you keep pushing, and you keep pushing. So those are parts of that that process. In my case, because I work a lot with organisations to develop more innovative cultures and we try things, but it doesn't always work. What I've learned from that, by studying those organisations, some that I've worked with, and others that are in the case studies, is what were the things that caused them not to work? And often, there's just missing pieces, it's a people thing, it's a systems thing.

Bill Jarrod: So there are models out there for successful innovation, one that I've developed with two colleagues of mine. And we can actually point at where the failure might be happening. So we can target those areas and actually develop them up. So we need analysis, we need to understand what's going on, what it takes to be innovative, or successful, or whatever it happens to be. And when we do that, we can then start to be more successful and bring it on board.

Phil Bickerdike: Yeah, that's exactly right. I think it's important to see failure as just a data point, it's actually something we can use. And I've have heard it said before, and I mentioned it earlier today, that we can look at fails and acronym as the first attempt in learning. That every opportunity we have to file is an opportunity for us to learn something and move forward with that. And for a specific example, I mentioned earlier today, where I was working with an organisation that there was a perception internally that the product they had in market wasn't performing very well against the competition. And so they kicked off an initiative to actually create another version of that experience to digital product. But what they found after investing significant resources into this and getting to the point of actually going to release this new version of the product is I came on board to the… late in the project. And I asked the question, "Well, what evidence do we have to support this point of view that people don't like our current experience, and then what need do we really have to deploy a new experience?"

Phil Bickerdike: And so when we actually had the opportunity to do some testing of the existing experience and benchmark that against the new experience, we found it wasn't really a problem that was there at all. And in fact, in your experience was no better than the current experience. So effectively, what the organisation was doing was moving forward with solving a problem that wasn't really there. So an unsuccessful solution is one that I think, by definition is one that doesn't have a problem to solve. And unfortunately, if we are too wedded to our ideas, we can end up having a solution that's looking for a problem. And again, I've been in situations where people can be very enamoured with their idea, and they're adamant that this is a great solution. And the earlier you can actually start to

build an evidence base for that, acknowledge that maybe there is an assumption here that we need to test and get some validated learning towards your outcome, then the better.

Phil Bickerdike: And so the term fail-fast is used a lot. And I think that if we think about failing fast, in terms of learning fast, what's the quickest way we can learn something from this idea? Bill mentioned earlier, this concept of MVP, which is really, what's the minimum thing I can build in order to validate my learning moving forward? And if we embrace that approach to developing solutions, even if those solutions are unsuccessful, by definition, because they're not hitting the mark, if we can do it cheaply, quickly, and we can learn quickly, then there's certainly value in that.

Jayanthi Iswaran: How do you evaluate the results of problem solving?

Phil Bickerdike: Yeah. So I suppose picking up on my previous point, evaluating the results of your problem solving is to design an experiment to think like a scientist. Scientists, they run experiments, I mean typically a scientist will have a hypothesis, and they'll go out to prove or disprove that hypothesis. The other thing that scientists will do is they will control the variables involved with their experiment. So think about how can I run an experiment here to take something, a prototype of my solution, some small instance, something that brings that solution to life, and then test that in a way to learn to see, whether, am I getting the expected results, is this a successful approach that we're taking to solving this? This solution. One technique we can use to do that very quickly and very cheaply, is a technique called think aloud testing. And that is where you can actually ask people to narrate their way through an experience, and verbalise to you what their experience is.

Phil Bickerdike: You can get very early feedback about what people think, how they're reacting to your solution very early on the process, even before you actually build a real solution. Then, of course, further down the track, once you've knocked the rough edges off things, and you begin to implement it, you can then use other techniques around testing, gathering data and analytics on those on the solution to get to, "Are we the seeing the right feedback, the right results, the right take up for a solution, how successful is it?" But taking a stepwise approach to this rather than jumping in straightaway, and deploying a solution, investing a lot in building that one solution, but actually taking a measured approach in terms of incrementally building this, iterating the solution based on your learning and improving that continually.

Bill Jarrod: Yeah, and I agree with all of that. And just to pick up on a couple of things. One of the first things that we should emphasise to our listeners is that in problem solving, there are always results. The trouble is we often only think about results as if they're good results. In other words, did we get the results? And the challenge is sometimes we don't know what we're expecting. We do things without knowing what it is we're expecting to get. So one of the things that ... And we go back to say, our seven-step process improvement model that we

have in the show notes. There's a process there of understanding where you're at before you start making changes. And if you don't know where you're starting from, then you're never going to be able to know whether you've improved or whatever.

Bill Jarrod: So you need to have the results at a detailed level. It isn't just a case of the lag indicators that are going on, sales went up, or that no longer happens. But we need to know that it's sustainable, that we've actually changed something, that we've improved and not just put a patch on it. So that's part of the key. So results are always there. Sometimes they're good, sometimes they're neutral, sometimes they're not. What we need to do is learn from them, I think, and I agree entirely, if you're going to work on say, process improvement kind of things, you need to know what that process capability is, what's going on in it, what's causing the issue, so that you can then measure later on to see what you're doing.

Bill Jarrod: And then as you develop your ideas to implement, you then need to, as you say, take it through, try one thing and know and predict, "If we do that this is what we expect to see." And this is your scientific approach, "This is what we expect to see, we didn't see that." Or, "Oh, we did see that, now we try something else." And so it's usually these incremental changes that can take place, and yet everybody wants the big fix, everything done at once. I'll break projects down into 50 different focus areas, in order to break it together each one knowing how it should add together, some of them will work, some of them won't, some of them just patter out, that doesn't matter, but you need to have that understanding in there. So I think that's one part of it.

Bill Jarrod: The other thing is problem solving is a process. And one of the things we want to learn from that process is, what did we learn? What were the results for the team? So as an example, we always sit back and say, "We went through this problem solving process, here's the results we got." But there's always extended results, "Did we also result in better teamwork? Did we learn new techniques?" Et cetera. So what were the results of that? Well, there's the benefits that come back from it. And I like to make sure we study those things. What did we learn by this? How did we develop? We now have a better body of knowledge within the organisation. That's a result of the problem solving process. And yet, we tend to only look at the issue from the problem aspect. Whereas I like to say, "Well, this might have been a total failure but what have we learned?"

Phil Bickerdike: Yeah.

Bill Jarrod: We've now got people who now know a whole new technique. Yes, it didn't give us the results we expected this time. But bang, we have a team now that's really ready to go to the next stage and try something else, and let's keep going. That's part of that. So I think results come in a whole bunch of different ways. And what we got to do is be open to looking for the results and understanding it from a number of different perspectives.

Jayanthi Iswaran: How do we prevent group think?

Bill Jarrod: How do we prevent group think? Just be by yourself. But even that's group think, isn't it? Because you're only getting one perspective. Group think is an interesting process, because it is probably the biggest danger we have in problem solving, process improvement decision making, right now. A lot of people will sit back and say that it's the adversarial thinking that disrupts everything. But adversarial thinking, at least has the benefit that if you can't agree, nothing happens. When groupthink takes place, everybody agrees. And if you've made the wrong decision, then there's no one checking it. So again, I like to use methodologies, tools and techniques.

Bill Jarrod: I draw a lot from Edward de Bono's work because I met Edward 35 years ago or so. And he provides us with methods and techniques to actually look at things from multiple perspectives, both from a perspective of people thinking styles, but also into the future into the past, from a values point of view. So I think that those tools when used in a collaborative environment in a team, you're going to avoid groupthink. And I think it's really important that people embrace those things. Because when they do, they're actually giving themselves the skill of thinking in a very objective and thorough way. And without that thoroughness, there's going to be bound to be mistakes.

Phil Bickerdike: Yeah, I think I touched on this earlier that there's a difference between having a shared understanding on a problem and reaching consensus. Having a shared understanding means that I understand the diverse perspectives that exist in this challenge. And that doesn't necessary mean that we agree. And I think that one really simple way to avoid groupthink is provide the space and time for divergent thinking, which is where we ... And Bill touched on this already around how you ... Diversion thinking being where you look to explore multiple different ideas, different options, you go wide, before then moving into convergent thinking, where we actually start to narrow things down, make choices. An important way to do that is to provide people the opportunity to express their own view and one simple tool used to do that is post-notes. Post-it notes can help us to allow everybody to write down their idea from their own head, and do that independently.

Phil Bickerdike: So giving time space for people to generate their own thoughts, in your divergent thinking, and so you're looking for different options, so that you allow people to express their own idea without filtering, without being influenced by the other perspectives, and then come together and share those different diverse perspectives. It's a very simple tool, but it's a very powerful one that you can use to start to visualise thinking, and then get shared, understanding to happen within a group. And it doesn't have to be physical, post-it notes as well. There are a lot of online tools that we can use to actually externalise, visualise our thinking, tools like RealtimeBoard or Mural, provide this functionality that you can use for the teams that are geographically dispersed. So I think that the key thing is allowing people the time and space to express my idea, and make it

a shared understanding of different perspectives, before moving too quickly into making decisions about how we're going to move forward.

Jayanthi Iswaran: What are the key takeaways for our audience today?

Phil Bickerdike: Okay, so great question, key takeaway. There's so much to reflect on when it comes to creative problem solving. I think the key takeaway for me would be that great problem solvers are great problem framers. So if spending the time to understand deeply the problem and frame a problem in the correct way, will set you up for success in solving that problem. So don't rush too quickly to a solution, but spend the time to make sure you are framing your problem in such a way that's going to invite you to generate lots of different ideas for solutions and help you to crystallise on that, as we said before the real problem or the right problem to be solving at that point in time.

Bill Jarrod: It reminds me of that quote attributed to Einstein, where he said, if he was given 60 minutes before the world was going to come to an end, what would he do? He said, "Spend 55 minutes understanding the problem and five minutes to fix it." And I think what you're saying, is exactly right. For me, I think there's a number of takeaways hopefully, we've got across to the listeners and to our audience. One is that problems are opportunities. There's no question about it. And problem solving is a chance to improve, to change, to adapt. And in this world, that's really the key success. One of the other takeaways that I'd just like to close with, I guess, from my perspective is, one of the biggest problems with problem solving is actually articulating the problem. Not just the right problem, but actually noting that there is something that's there.

Bill Jarrod: Some years ago, I used to run two-day creative problem solving courses. And at the beginning of that course, after introductions, I would ask people to take five or six minutes just to write down a list of the number of problems that they might have, so that we can work on real issues during the course of the two days, and that they might want to work on when they get back to work. And in five or six minutes, what do you think the average would be for the number of ideas written down? I mean, if you'd thought about it and you have five minutes to write down all the different problems you face in life and work, how many problems could you write down?

Jayanthi Iswaran: 15.

Bill Jarrod: 15.

Jayanthi Iswaran: Maybe a dozen, yeah.

Bill Jarrod: Maybe a dozen. Well, in five years of doing this with probably 60 or 70 workshops, with 25 people at each workshop, I have one get more than 10. The average was three or four. I had one guy one time come up to me, and he said, "Bill, that was really hard, I couldn't think of anything." So I said, "Well, go

home, you don't need a creative problem solving course, if you don't have any problems." See, what was the problem, actually articulating some of the things that actually want to work on and think about. What we tend to do is be reactive. Really successful organisations are proactive, they look around, they become what I call opportunity seekers, "There's an opportunity to improve there, there's an opportunity to explore there, there's an opportunity here, there's an opportunity here." Problems are opportunities, just rephrase them like that. And that people become opportunity seekers and take the negativity out of it, and turn it around into a positive process.

Bill Jarrod: So that would be a key thing for people to do. Because if you can't see it, you can't see it around you, you can't fix it. And so in the early days, certainly in the 80s, when we were doing a lot of continuous improvement, we had… people would say, what do you mean? And I said, "Come out here and let me show you." I'd walk them around. And point at, "Do you like what you see there?" And you'd actually show them where the challenges are, and I think there's a need for that. So understanding that problems are opportunities, I think is the key element.

Phil Bickerdike: That's great.

Jayanthi Iswaran: Thanks again for your time, Phill and Bill. This event was hosted by the Women CPA Committee, and I am the Deputy Chair of the Women CPA Committee, Jayanthi Iswaran. Thanks again, Phil.

Phil Bickerdike: Thank you.

Jayanthi Iswaran: Thanks again, Bill.

Bill Jarrod: Thank you.

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