

**Learning Uncut Disruption Series**  
**Clark Quinn – Learning Myths**  
**Hosted by Michelle Ockers**



**Michelle Ockers:**

Welcome to this episode of the learning uncut disruption series. Today is a little bit different from the previous episodes in the series because instead of focusing on one particular approach to learning or method that you might be scaling up or using for the first time, we're going to be taking some really good solid practical advice around learning myths and some of the things you might want to think about when you're designing and delivering learning right now regardless of what method you're using. And who better to have this conversation with. Then Clark Quinn, welcome Clark.

**Clark Quinn:**

Well thank you Michelle. Pleasure to be here.

**Michelle Ockers:**

Delight to have you. Could you introduce yourself briefly for our listeners and talk about the work you've been doing with myths?

**Clark Quinn:**

Sure, so I saw the connection between computers and learning as an undergraduate it just became my life. I designed my own major, went back to grad school to get a PhD in applied cognitive science because we didn't really know enough about how the brain worked in our design processes. Since then, I've taken a circuitous route, did some academic time in Australia, as well as been in the corporate world for a little over 20 years now. Came back to the US to lead an initiative. And I currently help organizations do things that better align with how our minds work, how we think, how we work and how we learn. I do that through quinnovation. And that deep foundation in cognitive science is what led ATD to ask me to write the book on learning on myths and misconceptions, titled Millennials, Goldfish and Other Training Misconceptions. And I'd been a fervent advocate for learning science and against myths and it was a real pleasure to actually get a chance to put a stake in the ground and go, "Here's some things we really shouldn't be doing."

**Michelle Ockers:**

And I love that this is coming from a really solid base of cognitive science, Clark. So what are the differences, you talk about this a little in the early part of your book, what's the difference between a myth, a superstition and a misconception and why is this distinction important for learning professionals?

**Clark Quinn:**

Okay. Myths are things that have labels that people have invested effort in and adhere to. They will say, "Oh yes, we should do this, this is important." And there is evidence that says that this is not the case. They are not real things. They are not worth involving. There can be a variety of ways in which they're not valid. Either they come from a mistaken misconception or somebody's thrown it out there and mislabelled it's actually been empirically tested. So those are myths. Then superstitions to me are a lot of behaviours that won't even acknowledge, verbally they won't say that that's what they do. They'll say they do something else. But when you look at the output, you're seeing these behaviours that are just wrong. And this is simple things like believing that clicking is engagement, right?

**Michelle Ockers:**

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Right. As in clicking the next button at a pace of e-learning.

#### Clark Quinn:

Right. So it's just background beliefs we have that just aren't appropriate and yet we're almost not conscious of them. And finally, misconceptions are things that some people love and some people hate. And what I tried to do there was, not challenge that they're not provably false or not, it's how you interpret them. And so what I tried to do with those was come up and say, if this is the situation, it makes sense for you. If that's the situation instead, it's not going to make sense for you, but try to lay out when it makes sense and when it doesn't, what the two viewpoints are. So they're not wrong, it's just they may not be correct for everybody. Then you have to get dig into the nuances first before you can really understand when they make sense for you and when they don't.

#### Michelle Ockers:

Clark, we are so lucky to have people like you in the profession to do this hard lifting for us so that we don't all need to be cognitive scientists myself, I tell you. Tell me, why do myths perpetuate? Because some things we know amidst and [inaudible 00:04:27]. I'll say that again. Clark, why do myths perpetuate? Because some things we've known for many years are myths. They've been debunked and it's well known, but we continue to use them. Why is that?

#### Clark Quinn:

There's a couple reasons. Some of them really match the ways we want to believe about the world. So for instance, learning styles is one of the common myths that people differ in how they learn and we should accommodate it. And the reason is, if anybody's who's ever taught knows learners do differ. So having a nice simple solution would make it easy for us to characterize them and then treat them according to their styles. The problem is, it's not easy. People change depending on what they're learning, where they're learning, why they're learning, phase of the moon, lots of different factors, right? But our brains like to simplify things and so it's easy to believe it and attach a label to it, and then it gets reinforced in an echo chamber. We like simple solutions. It's just not always, everything is simple enough that we can use these simplistic approaches.

#### Michelle Ockers:

Yeah. Sometimes it feels like there's a useful shorthand underlying and make that there's some useful point being made, such as recognize and adapt to differences. Right? Which perhaps learning styles, perhaps MBTI is also an example of that. So there's a sense of intuitive appeal and ease of use. Something resonates but nonetheless, the specifics are not quite right. Right?

#### Clark Quinn:

Exactly. We'd like to find this way of viewing the world that matches our intuitions. And yet our intuitions, really interesting stuff by David Gary. I hadn't heard about it until recently, but biologically primary and biologically secondary learning and biologically primaries learning about the world, that's very causal. That's if you hear wrestling in the bush, get away because it could be something dangerous to you. Right? Our brains are highly wired to learn well, but when we get into these aspects that we've created, like economics and societal rules and mathematics, we created these. And that learning our brains aren't hardwired to do. And in fact, if we have to struggle to do our folk psychology, our folk beliefs about what works isn't true. And so we have to be a little bit more rigorous about our background and make sure we're not just falling into old habits that aren't appropriate in this new world.

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#### Michelle Ockers:

Yes. So let's pick a few myths and I think the reason for doing this is firstly to make sure people are aware, these are commonly applied myths that they should look out for. And I don't mind whether you pick myths or maybe a misconception, it's up to you, but the things that you think people fall into the trap of quite regularly. But also the way I'd like to talk about them following the structure in your book, to help people to start having a pattern to start thinking about and challenging some of what they hear in some of their practices, perhaps Clark. So is there a myth you'd like to start with that you think people are still overusing?

#### Clark Quinn:

So many, it's hard to pick one. So we went through learning styles and again that's appealing, and I tried to include why these things were appealing but also give people something better to do instead. Learning style is appealing, but it turns out we can't reliably measure them. Psychometrically we find out that these instruments are not accurate at reliably categorizing people and it turns out there's no evidence that adapting to learning styles works. Another one, the attention span of a goldfish is one that drives several of our colleagues just absolutely bonkers around [crosstalk 00:08:29] because it seems like people have no more attention and they're constantly distracted by things. But our attentional wiring isn't going to change. It's evolutionary is the mechanism, it changes and it's not going to change that fast.

#### Clark Quinn:

What's happened is we have a lot more distractors. We are susceptible to changes in attention span, but the counter argument is pretty robust. How many people, of our listeners, will recognize that they've gotten lost in a movie or a game or a book for hours and suddenly surface and go, "Oh my gosh, I was supposed to go to bed 13 hours ago", right? Whatever it is. And the generations is one that that winds me up a little bit. Then this notion-

#### Michelle Ockers:

[crosstalk 00:09:15] for a moment before we move on to generations. I can see you're passionate about that one. Let's stick with the attention span of a goldfish for a moment. So you've talked a bit about why it would be appealing. What's the potential upside of that myth?

#### Clark Quinn:

Do you mean the upside about why you would believe it or the upside of it?

#### Michelle Ockers:

Is there any value in it? For us as learning professionals or is it just all downside?

#### Clark Quinn:

We couldn't take a positive lesson from it. So we are distractible, so the lesson is remove distractions, help people focus their attention. There are better arguments for this like cognitive load, John Fuller's work there at Union New South Wales helps us recognize that there's only so much bandwidth we have and we have to minimize the load so that we can focus on the things that are important. But it might help you pay attention to that. But again, it can mislead you into thinking everything has to be brought down to less than 10 seconds. And that's bad.

#### Michelle Ockers:

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Indeed that is bad. So but be aware of distractions and on the lookout for minimizing distraction. But there's probably a better way from a scientific perspective to get there, which is understanding cognitive load, right?

#### Clark Quinn:

Yeah. Remove distractions and help focus attention. Draw attention to important places. Highlight them.

#### Michelle Ockers:

Great. Let's move on to generations. I'm ready to let you go on this one now.

#### Clark Quinn:

Yeah, it's really appealing. But to think that oh well that generation is different than this generation. But it's again, our brains trying to create simple explanations. But if you look at the spans touted for the different generations, different people's generational breakups are at different times. And it's also a continuum. Just this year that much different than somebody that year, just because they're in some arbitrary boundary? They were born in '72 instead of '73 so it makes a difference? It's not. It's much more of a continuum. And almost all of the features you can attribute to generations actually are explained more simply just by age. So, for instance, they used to say, "Oh, millennials, what certifications?" But baby boomers don't. Well there's a better explanation for that than that's generational. It's just that when you're young, you don't have a lot of experience to point to, so certifications give you a credit.

#### Clark Quinn:

When you're older, you have a lot of experience you can point to. I did this project, I did that project. I have clearly demonstrated the skills. The classic one I love is, "Oh kids these days just don't listen to the older generation and their values." They've been saying that since ancient Greece.

#### Michelle Ockers:

Yes.

#### Clark Quinn:

Every real generation since then has complained about the same thing. And it's just, young people are caught up in their own little lives, aren't hormones wonderful?

#### Michelle Ockers:

So is there a [inaudible 00:12:34] that does counter the fact that this myth around generations [inaudible 00:12:40]. How easy is our language to lead us astray there? I was going to say the fact that generations are different. The myths that generations are different. There's a body of evidence, longitudinal evidence following people over time and tracking the differences that are related to age rather than to the year they were born.

#### Clark Quinn:

Well, the evidence I like is the one that has assessed their workplace values and said, because they say that, "Oh these people value this more about a job and different generation values that much about a job." But they actually did these measures and then broke it up by generations and found there was no statistical difference.

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**Michelle Ockers:**

Yep.

**Clark Quinn:**

Everybody wants workplace that values their effort and gives them opportunities to expand. And that was one of the classic explanations of what generations gave you was handle on this, but it's really just a mild form of age discrimination. And I think arbitrarily lumping people by generation is just as bad as lumping them by any other characteristic. Understand the person.

**Michelle Ockers:**

Yes. So how then do we use that or how should we use the counter of that which is understand the person and accept that there's a continuum that's more related to age potentially than to generation? Because we do have people across a range of ages in organizations which you're suggesting the evidence says is a consideration rather than labelling them by generation or does the evidence not support treating people any differently from a learning perspective based on age?

**Clark Quinn:**

It doesn't really support that. Young children, yes, they don't have experience and they have more limited working memory, it takes time to build that up. But when they mature by the time they're in high school, they're really there. And the small differences for instance, as you get older you lose perhaps the ability to recognize details as much, but you actually get much better at looking at the bigger picture. So it's trade-offs, but when it comes to learning, it turns out the best thing to do is the best learning. That myth that young kids only play games. You're going to have to do games for them for learning. No, it's just better learning. I'm not talking about [inaudible 00:14:55] drill and kill. Although if you have to absolutely have it in your head, that's perfectly fine. But I'm talking about deeply engaging simulations where you're making people actually do the task.

**Clark Quinn:**

And that's true for older people and younger people, it's just better learning. So it's the same thing with trying to adapt the learning to the learner. No, adapt the learning to the learning need because different types of outcomes require different types of treatments. Focus on that. Not on age or some measure of a psychometrically valid instrument or anything else and save your resources for doing learning right instead of chasing the latest fad.

**Michelle Ockers:**

Okay. So is there another common myth you'd like to challenge or help us challenge today? One more.

**Clark Quinn:**

Let's see. I'll go with the Dale's Cone and our colleague Will Tallheimer has really researched this as have others.

**Michelle Ockers:**

So, what's Dale's Cone?

**Clark Quinn:**



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Sorry?

**Michelle Ockers:**

What is Dale's Cone?

**Clark Quinn:**

Yeah. It's that pyramid where it says people remember 10% of what they hear and 20% of what they see and 30% on up to 90% of what they teach or whatever. First of all, the numbers are wrong. Dale did make that cone, but he didn't attach any numbers to it. Later on, some people did and they miss attributed to Mickey Tee, who I happen to know and know she would never have done that. She's a researcher and Will contacted her and they [inaudible 00:16:32] no, I never did these numbers. It's a total mistake and there's a group that refuses to stop pushing it, but they have no plausible story about where the numbers came from.

**Clark Quinn:**

So it was made up. And so many of these things, the attention span of the goldfish, going back to that one just briefly, they have these weird providences. So that one was cited as Microsoft or IBM Canada, but it turns out the marketing group, not the research group. Right? And they were getting it from a place called Stat Brain who are getting it from a study done in Germany that tested people's time on webpages, one year and then several years later. They went from 12 seconds on a page to eight seconds on a page. Which is a reasonable study, but there are much better explanations that our brain's changing. Maybe pages load faster, maybe we have more experience deciding this page isn't worth our time.

**Michelle Ockers:**

And again, context is important, right? People were there for marketing to get information about products potentially rather than to learn.

**Clark Quinn:**

Right. And compare it to the attention span of a goldfish, we don't really know the attention span of a goldfish. We know they do have attention and they can learn because they will start coming to the surface for food when you get there. But even before the food hits, they will start reacting. But they don't have the attention span. And the same thing with Dale's Cone. He made this hypothetical cone just as a general framework. People added numbers to it. Now it's supposed to be absolutely that way.

**Michelle Ockers:**

Yeah. So what does it look like to be a smart consumer then? What are some of the practices we should apply when we're reading, when we're listening to things, when we're hearing about ideas as learning professionals, how do we get to the bottom of, is this something that is worthwhile me knowing more about and applying in my practice?

**Clark Quinn:**

Well, the best thing to do would be look for published peer reviewed research and even that's somewhat problematic. But it's hard to tend to be written in this obscure language called academise, that very few people are trained to read and you have to get into the research methods to really understand it. And that's what you do in a research PhD training. But not everybody should be expected to do that. Some of it gets more basic. Just, is anybody else saying this? Not just an anecdote of their customers who having bought it have a vested interest in believing it. But is there independent verification? So triangulate on

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the data and it's coming from more than one source. Does it pass the sniff test? Is there a causal explanation that makes us make sense? Of course, isn't even relevant to me? What would it mean I do differently and what outcomes would I get different if I did this? Can you make that tangible to me and write that into the contract? This will happen and it's not just because I believe it.

#### Clark Quinn:

And the other thing to do, is to look to the people. There are some reputable translators of research to practice. I've mentioned Will Tallheimer, Patty Shank, Julie Dirksen, Jane Bozarth, Miriam Nealon, Connie Malama. There's a whole slew of people who have reliably been able to read the research, translate into meaningful prescriptions and call out when something's not true and track them and see what they're pointing to.

#### Michelle Ockers:

Great suggestions. I'll put links to all of those people's websites and your own Clark and your book in the show notes for people who are looking for those translators. I know I rely on a number of those people myself quite heavily.

#### Clark Quinn:

Right. There's a site for the book that's [debunkinglearningmyths.com](http://debunkinglearningmyths.com) there's a resource page that lists those people with [crosstalk 00:20:32].

#### Michelle Ockers:

Beautiful. I'll do that. I'll save myself some effort. Thank you. Any final words of advice or guidance for the learning professionals out there who are listening to the podcast?

#### Clark Quinn:

Yes. Get a decent background in the basics of learning science because if you understand how things work, you're better able to understand why it's not true. As soon as you understand how attention works, you'll understand that eight second attention span of a goldfish can't be right. And once you understand how we process information and how we differ, you're going to be resistant to some of these other myths and be careful out there. Caveat emptor, right?

#### Michelle Ockers:

Yes, yes. So short of going and doing a degree, which can be a very time consuming and costly thing, what suggestions do you have for people as to how to get a good grasp of the basics of the learning science?

#### Clark Quinn:

For now, I would recommend Julie Durkin's book, Design For How People Learn. There may be another one coming out soon. I'm going to be doing a session in the L&D conference that Matt Richter and Paul Heimer organizing. I'm trying to think if there are any other good introductions to the basics of learning sites, not that are accessible yet.

#### Michelle Ockers:

Okay. [crosstalk 00:22:07].

#### Clark Quinn:

[crosstalk 00:22:09] missing it.

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### Michelle Ockers:

Okay. Clark, thank you so much for all that you do to promote good practice amongst learning professionals and for sharing your insights, guidance, and some really good practical tips and helping us debunk some myths today.

### Clark Quinn:

Well, and thank you and thanks for doing this. It looks like a really good series you put together here and so I'm looking forward to digging in and thanks for supporting the industry.

### Michelle Ockers:

A pleasure.

### **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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