

[00:00:00] Bonni Stachowiak: Today on episode number 363 of the *Teaching In Higher Ed* podcast, Phil Newton is back. This time, to talk about evidence-based teaching practices.

[00:00:13] Production Credit: Produced by Innovate Learning, maximizing human potential.

[music]

[00:00:22] Bonni: Welcome to this episode of *Teaching In Higher Ed*, I'm Bonni Stachowiak. This is the space where we explore the art and science of being more effective at facilitating learning. We also share ways to improve our productivity approaches so we can have more peace in our lives and be even more present for our students.

Phil Newton is the Director of Learning and Teaching at the Swansea University Medical School in the United Kingdom. He teaches neuroscience and educational theory to students in the school and was the 2015 British Medical Association, Wales Swansea Teacher of the Year. He's the program director for the research in health professions, education, professional doctorate program.

His research interests are in the areas of evidence-based education. He's focused in past episodes on academic integrity. This time, we get to have a conversation more broadly about other evidence-based teaching practices. Phil, welcome back to *Teaching In Higher Ed*.

[00:01:35] Phil Newton: It's a pleasure to be here, Bonni.

[00:01:37] Bonni: It's been years, and I'm so glad that you got in touch and especially because I'm so intrigued by your areas of research you've been doing since we had a chance to talk the last time.

[00:01:50] Phil: Thank you. It's been an interesting journey. I've really always been interested in the idea of how can we make teaching most effective, make support learning for it to be as most effective and coming from a science background and working in a medical school, taking an evidence-based approach has always seemed fairly logical to me, but I learned early on that perhaps it's not a view that is universally shared.

The research we've done is to try to find a compromise way through some of the arguments about that topic. That's where we've got to the papers and talk about today.

[00:02:23] Bonni: There's so many things that I want to ask you about. I'm going to try to behave myself, but before we really get into this, when you talk about evidence-based practices, how do people gather that evidence? What's the mechanisms by which we decide if something is evidence-based or not? What are the kinds of things that people do in their research?

[00:02:46] Phil: That's a really fundamental and interesting question. I think it gets to the heart of some of the disagreement between different parties around whether we can even achieve an evidence-based approach to learning and teaching. A traditional view of that would be that you gather evidence by doing experiments and that there are hierarchies of evidence.

If you've done a randomized control trial with control groups and an intervention that that's good evidence. Then going all the way down to things like case studies would be some of the weakest evidence. I think what we're trying to propose in the work that we've done is that many different things can count as evidence.

The key thing is whether or not they are useful for you in your particular context and the thing that you're trying to do. That's the heart of really the philosophical

approach that underpins what we're talking about, which is pragmatism, maybe we'll talk a bit more about later.

If you have evaluated something using action research as an individual practitioner, that's evidence. If you share that with someone, that's evidence. If you take a systematic review of matter analyses or randomized controlled trials, that's also evidence. The key thing is how useful it is, how much it relates to your own context, and things like that.

[00:04:02] Bonni: I get super intrigued by this idea of our preferences versus what actually happens in reality. [chuckles] I'm trying to think of an example right now because this just happened to me last night, where it's like, it just seems like such a good idea, whatever it is you're thinking of, for me, it might be buying something that I don't really need, but it just seems like it's just a good idea. Then you don't end up using it as much as you thought you might. I'm intrigued with that.

Robert Talbert is someone who wrote a little bit about this idea between-- actually, what he did was he took an academic article and then made it more conversational on his blog but what people's preferences were starting out in an online class about how much they perceived, they were going to value these different things versus what they actually valued and used during the class.

I know when we start talking about things that there is evidence for, there's lots we can discuss about there, but before we even get there, what are a couple of really popular theories that really are representative of our preferences versus what actually plays out and the reality of what works? What are a couple of things that really isn't the evidence for them working?

[00:05:15] Phil: I think probably the most famous and yet still to lots and lots of our colleagues most shocking would be the idea of matching instruction to so-called learning styles. We've done, published a few papers on this. In fact, we submitted a new one this morning and I'm sure many of your listeners will be familiar with this idea of being maybe a visual learner or an auditory learner, or a kinesthetic learner.

There are 70 plus different ways that we can classify people. Kolb's learning styles inventory is another one, Honey and Mumford is another really popular one. What that theory says is, that we can diagnose people more or less into one or more of a so-called style. That represents a preference for how they learn. That is a preference.

Some of those preferences are more stable than others, but where the theory really is falls down is that this idea that we should then be teaching people according to their preferred style. If you're teaching a class that's been diagnosed as either visual, auditory, read-write, or kinesthetic using the so-called VARK model, then you should develop four different versions of your teaching to match the four different groups of styles in your class.

That really doesn't work. We've known it doesn't work since the early 2000s. Yet, we published a paper at Christmas showing that almost 90% of teachers still believe that it does. I'm shrugging my shoulders because I really don't know what to do about it other than to keep telling people as appealing as it sounds.

Of course, as you mentioned, we all have our preferences and that it's very intuitive that if we learned, according to our preferences, we might do better. It really doesn't work out. We are really all multimodal creatures. That's probably the most obvious example of something that demonstrably doesn't work.

[00:07:04] Bonni: This hasn't hit me before until you just said it right now but when you were talking about people developing four different versions of their classes. I hear this a lot, this 90% figure that you mentioned is not surprising at all to me. I can't think of anyone whoever has subscribed to this point of view, who actually then has four versions of the lessons.

It reminds me, it struck me just as you were describing it, that it's another one of those things that you put back on the learner to figure out, they took the assessment, and then you need to figure out how to make this visual for yourself. You need to figure out how to make it auditory.

I'm not going to-- I don't have the time to make four different versions of it. Versus the things that there is evidence for working, but actually, before we get to those, there's another one that I just would love to have you touch on.

This is such a fun one for me. We've talked about it at least once on the show, but it's been a while. What about this Dale's cone of learning? I suspect many people have seen it, but you might have to remind them what it's all about.

[00:08:09] Phil: Dale's cone is another one that's, it comes from a good place like learning styles do. The people who devise these series are trying to help, but it's been oversimplified, over-interpreted and ultimately, the way in which it currently is presented isn't useful at all.

You would have seen it normally as a triangle. Often when we see things at triangles in educational theory, that's a bit of a warning sign and this particular triangle is normally organized into types of activity. It'll say something at the top like we remember 10% of what we read and at the bottom it'll say, we remember 90% of what we say or do.

At the heart of it is advocating for active learning, for which there is some reasonable evidence, but do you normally do it with multiple different tiers, at 30% of things that you read and then write down or something about that.

There's just really no evidence for it at all yet, you see it everywhere. I am not sure whether I should say this, but I will. I think I could do it in a sufficiently anonymous way. I gave a keynote once at an education conference about evidence-based approaches to learning a teaching. I was the after-lunch slot.

I sat in the conference in the morning and there was a technical problem, which meant that I had to go and rewrite my presentation. I'd missed all the presentations in the morning and I popped up on stage after lunch. I started off by advocating for different evidence-based approaches to learning...

One of the first things I talked about was Dale's cone and I put it up on the slide. Really, this is a lot of rubbish. You shouldn't be doing this. There was a lot of shifting in seats and looking at floors and daggers coming my way.

It wasn't until after I was done the sum of 50 minutes later, that I was told that the other keynote to the external keynote from a very well-respected institution and an eminent professor in education had used Dale's cone as an example of something that we should be doing.

Again, very well intentioned, but just shows you that these things are everywhere and they have a certain intuitive appeal. When you start to pick at the evidence, there isn't anything for them.

[00:10:16] Bonni: Now, we get to the slightly happier portion of today's show. It is, there actually is evidence for some approaches working. Tell us first about retrieval practice, which if anyone's been listening to this show for any length of time, this is something that comes up a lot. For people who may not be as familiar with it, what is retrieval practice and what do we know about how it does or doesn't work?

[00:10:38] Phil: The retrieval practice, the basic idea that, well, the simplest way to operationalize retrieval practice is the idea that taking practice formative or summative quizzes or tests improves learning. That it's based upon this idea of the testing effect, and there's an abundance of literature showing that people who take tests in one form or another tend to learn more than people who don't and the control condition for those studies is normally people who reread bits of text or rewatch PowerPoint slides or whatever it may be.

Those are the things that actually students tell us they do when they're asked how do you study, "Well, I read my notes so then I read them again and I read them again." When you compare learners who are doing that with learners who read something, then take a test on it, those who take the tests do better.

Unfortunately, that is often we said, somewhat misunderstood as we need to give people more tests, more exams and that's not always a good thing to do. Really, the underlying neuroscience or is the cognitive psychology for retrieval practices is

that anything you can do that brings to mind what it is you're trying to learn and particularly matches what you already know about something with what it is you're trying to learn, that really does help.

There's a lot of good neuroscience that underpins that about the retrieval of long-term memories into working memory of matching new information that's being held in working memory, being an effective way to prompt learning.

It doesn't have to be an exam. You can ask your students to write down everything that they know about a particular topic before you start a new class or something like a mind map or the best one I think in part, because it saves us some effort on occasion is you ask students to write quizzes for each other.

The act of them writing a quiz helps them learn. It helps their peers learn. There's lots of different tools that you can use to do that. Anything that helps students bring to mind what it is they're trying to learn takes advantage of this principle of retrieval practice. It's a really simple thing to operationalize as been shown over and over and over again to improve learning.

[00:12:47] Bonni: I got such a kick out of using the same deck of flashcards, where students would do something on their own to do retrieval practice. It was generally some kind of a exercise, that type of thing.

Then they would come into the class and do something in a group that the one I use is called Quizzlet.

There's a game they can play called Quizzlet live where they're playing against their peers, and they're on a team. What makes it unique, it's the only time I've ever seen this is that only one of them has the right answer.

In a team of three or four, they're trying to figure out which of us has the correct answer. To me, that even doesn't quite take it quite far enough, this is fundamental to the learning for the class. I had them watch a humorous television show called *The IT Crowd*. It's a British comedy.

[00:13:41] Phil: I am familiar with it, yes.

[00:13:42] Bonni: Great. Then take a first person narrative approach and write as if you are one of these characters in the episode and use some of the words from the same flashcard. It's building up both in terms of smaller stakes or no stakes.

The individual practice might be just a tiny handful of points just to get them to do it, but no score as far as right or wrong. The practice was the aim in the first place. Anyway, I had great fun with experimenting there.

The other thing that's so interesting about this one too is that I have found and so many of my colleagues have shared this is where preferences can really emerge and students from the retrieval practice research that I've seen can think that it actually works better if I just highlight my notes or reread it or whatever. It feels like it doesn't even when presented with contrary data that says, "No, actually look at this. You see how you knew more over here," versus, "Oh, no, no, but this still works better for me."

It's back to that preferences thing versus what works. I find to me, part of it is because we don't really have as much comfort failing in educational spaces, it's not really celebrated or embraced. I have to really hone in all the time.

Anyone who takes any class with me ever, ever, ever knows what retrieval practice is. Even if that's not what I'm teaching, they need to know it because remember, forgetting is the friend of learning. Then remember that, why are we doing this?

That sometimes it's uncomfortable and then it helps if I sometimes fail, because my memory will fail me sometimes too and they can see me being comfortable with, yes, this is all, I'm not keeping track of this. It's anonymous. We're getting time to practice so that deeper learning can occur.

[00:15:34] Phil: I tried something in a new class this semester, actually, that appears to work very well. One of the things I think that with these principles that I like to try and use as part of the overall pragmatic approach is to recognize that assessment drives learning, which we're often told is a bad thing.

I think at the end of the day, it's a lot of human nature and let's try and work with it to get the best for everybody. We've built into the class credit for doing retrieval practice and the way that we've done it is to use this tool called PeerWise, which is a site, I think it's based in New Zealand where students could log in and write questions for each other.

We give them credit for the class if they've done a certain number of questions and then they can rate each other's questions. They can write feedback for each other and they have to write an explanation for the questions that they write.

So far, myself and all my colleagues have used it found that the students really do get on board with helping each other and using it as a revision tool than even once the class is done as they prepare for exams in future classes. Building it into assessment, giving them the opportunity to actually generate the questions themselves seems to be a simple-ish way of operationalizing retrieval practice into a class.

[00:16:55] Bonni: I know another big one that you have looked at a lot is cognitive load theory as something that there is evidence for. Could you tell us a little bit about that?

[00:17:06] Phil: I love cognitive load theory. I'm unabashed in my love for it in part, because I'm a neuroscientist by training and it's rooted in the biology of human working memory. I'll have to restrain myself because I could talk about this until Christmas.

The neuroscience, I think if I was to give or to advocate to people one aspect of educational theory that would really help everybody have an understanding of how learning works and so to improve it would be to understand the basics of how our working memory doesn't work. We have three basic types of memories. I'm sure many of your listeners will be familiar with.

The short-term memory or sensory processing where we turn light and sounds into the electrical activity in our brain. Working memory, which is where we hold

information while we work out what to do with it. The long-term memory, which is where learning goes to be stored. We have this amazing capacity for learning.

We could remember all the things going back many decades, and yet we have a really limited capacity for processing new information in real time. Some of the old psychology on this by ... that we have maybe seven storage or seven chunks of information in working memory at any one time. Yet, we have to process almost everything that we want to learn through working memory.

It's a real bottleneck for learning. What cognitive load theory does is say, this is a bottleneck, here are some strategies to help us account for that bottleneck and work with it and manage it as a way of making learning more effective. There are all sorts of things of cognitive load theory that are quite straightforward to put into practice.

Using work examples, anything that gets content out of working memory and into an external scaffold. Putting this idea-- interestingly, cognitive load theory likes to use very esoteric jargon. That itself is difficult to understand.

Things like temporal and spacial contiguity, which is a complicated way of saying keeping relevant bits of information together and time and space. Don't have people hold in their working memory things that they don't necessarily need to, if you can keep things together on the same page, or on the same slide.

Then not using when you're doing let's say lectures, keeping the slides simple and clear and free from extraneous information that's distracting and unnecessary. Very simple things, but when you ground them in the biology of working memory, it actually make a huge amount of sense in terms of helping people learn and preventing them from becoming overloaded.

Now, we've all become overloaded. We've all sat in a lecture where we've got lost and once you're lost, it's all over. It's very difficult to come back from that. Yes, I think there's a lot that we could learn from cognitive load theory and lots and lots of great review articles out there by people that know far more about it than I and I'd recommend them to anybody.

[00:20:05] Bonni: You're reminding me a little bit that there's a methodology called getting things done. It's in the realm of personal productivity, but his evidence for why that particular approach to managing time and tasks and attention is because of cognitive load theory.

The author's name is David Allen and he says our mind is for having ideas, not holding them. The idea is if we have some kind of an external system, in my case, I have a task manager that I use and rather than me trying to remember-- Oftentimes people will say, "How do you have a podcast and you're a dean and you teach and all these things?"

You always want to admit like, "It's not as good as it looks. Remember, the podcast is edited and we're able to outsource it." I always feel like I want to start with humility, but I do think people misunderstand. It's exactly what you said about working memory. I don't use my working memory to remember at what point, there's about 15 steps to get through for any one podcast episode, but we record at different times and you had to reschedule because you had an issue.

How could I possibly remember? Did you fill this thing out? Did we talk about this? Did I tell you about the recommend-? It's too much to try to hold in our head and once we can get it in a trusted system that we know that that information will be available to us.

You said when it's relevant and that everything else gets cleared away, and that really does free us up both for learning, but also in this case, I would think of him of freeing us up for the more creative aspects of our brain, what it does really well, but we get in our own way sometimes.

[00:21:53] Phil: We talk a lot in educational theory about this idea of scaffolding. Really, what you've just described as scaffolding for life, rather than scaffolding for learning. It's all these things that I need, but I don't have to have to hold them in my mind as it were at any one time. I can put them outside on the scaffold and then this very limited space that I have in working memory, I can dedicate to the things that I really need.

In cognitive load theory, that would be having a high germane cognitive load. You're focused on the things that you really need to be paying attention to and not paying attention to the animated GIF on the slide or the twirly bow tie of the teacher, or the fact that you're cold, or even some things that we as educators can't keep a track of. If you're hungry or stressed at home, those are distractions, extraneous cognitive load that we need to be aware of but we can't always account for.

[00:22:48] Bonni: Before I ask you about communication skills, I wanted to ask you a little bit first about where this all lands in the arguments around memorizing things and the importance or lack of importance of it. This is a very nuanced discussion I realize, but what are some of your thoughts and what some of your research around how much I, as a learner, need to be memorizing things versus how much I don't, how would I know to be able to discern between those things as an educator? Where do you land in terms of all of that?

[00:23:21] Phil: That's a really interesting question because it's a very common and heated-ish topic, certainly in the UK. Although a lot of the balance of the discussion tends to fall on the side of, we need to be focusing on developing skills and not memorizing facts.

I think that's unfortunate because I don't think I would be advocating for having all your university students saying things out loud, like times tables, but we cannot critically appraise things that we don't have a basic knowledge of. Critical appraisal is the thing that we're trying to get to in higher education.

It's higher-order working with information, concepts, and learning, doing our own independent, thinking about them, and praising them critically, but if you don't know the basic facts, it's almost impossible to do. Certainly, in STEM subjects, which are more familiar with, we are absolutely up to our eyeballs in facts. A lot of those facts come with a terminology that is almost impenetrable.

I teach neuroscience as my day job, and I show medical students a list of regions of the brain that they have to understand and they have to know about. Even the

names are impenetrable. The common region of the brain we talk about a lot is called the substantia nigra. It's really important-- Bonni's ... It's really important.

It's the region of the brain that dies in Parkinson's disease. It does a lot of really important things in helping us move and initiate movement and coordinate movements and other things besides. Students have to know about it. They have to know whereabouts in the brain it is, what it looks like, what the cells in it look like, and so on.

Just the name substantia nigra, there is nothing in there to help you as a novice learner, understand what that means. You have a page of terms like that and quite straight away, you're overloaded. There's no real way around that other than learning the facts.

We can use structures to help people organize that in a better way. If you had an understanding of the classics, you'd know substantia nigra is a black substance, and it's black in the brain, so maybe that's helpful. Then if you could learn some of the anatomical organizational terms like what's up or down, what's left and right, what's the middle and center, then that helps you with some of the other terminology.

There really isn't any way around being able to understand the neuroscience of Parkinson's disease without knowing the terminology of substantia nigra and dopamine and all these other complicated terms. That's my long-winded way of saying, we do have to learn and memorize a lot of facts, particularly in STEM, but that's no bad thing.

[00:26:15] Bonni: I always think of these things of it's never all or nothing. Working with STEM, it's always that you don't understand and we have to memorize things because that's our field. It's like, "Well, the doctor still goes and looks up your prescription to see if there's any--" what is that called? Speaking of memory. Not side effects, but complications, what medication.

No human being is going to rely on their memory for all of the drugs that they may prescribe, all that kind of thing. Then again, you don't want them to not know

anything off the top. I'm speaking in a domain I know close to nothing about in case you can't tell, but I just really think we're in such a danger zone when we think everything has to be memorized or nothing does, there's got to be some gradient in there.

[00:27:06] Phil: Absolutely. You have to know when you look up the side effects what they mean. The skill is being able to match the different terminology and the different patterns to what you see in front of you and making a judgment about it.

I think one of the things, evidence-based tips we can use it in any domain that matches to cognitive load theory in our understanding of working memory and long-term memory is to try and make learning new information relevant to what somebody already knows. That's something that is represented in multiple different ways, in many, many different, and seemingly disparate learning theories like constructivism makes a great deal about that, but actually, when you work it back, it maps perfectly onto our understanding of how the neuroscience of memory works.

Even with something like esoteric terminology in neuroscience, like substantia nigra, if you could say that's black substance, there's not many other black substances in the brain. We know what black substance means. Maybe that's a hook there to help avoid some of this overload by making things, stick to things that are already at long-term memory.

It also links to this idea that we hear a lot about. We don't need any facts at all because we can just Google anything. I think your very pragmatic points about it being all or nothing is really relevant there. It's certainly impossible for, say, a doctor or any professional to Google everything in real-time and function.

At the same time, I don't think we should be afraid of saying to our students or even our trainee doctors or qualified doctors of, "There's no harm in looking stuff up. You don't have to have it all in your head. If you're not familiar, please do look it up rather than try and remember it and get it wrong." It's far better to do it that way.

[00:28:54] Bonni: Well, before we get to the recommendation segment, I know that you have some things to share as far as some of the fundamental communication skills and there being evidence for their importance.

[00:29:06] Phil: I think I am an unabashed advocate for, and I guess defender of the ... lecture. Again, as someone who works in STEM, lectures are very common. We have large class sizes.

I think one of the conclusions we've come to in some of the work we've done on evidence-based practice is that we need to be pragmatic about how we apply some of the evidence. Pragmatism is a philosophical approach that prioritizes research questions or questions about practice that are useful.

I think when we think about teaching from a pragmatic perspective, a good lecture can be a really useful way of helping people learn. Plus it also is pragmatic from the perspective of it being efficient and you could get lots of people into a lecture theater for a short period of time to engage in some useful learning.

The key, though, to a successful lecture and I think a key to a lot of teaching, as I'm sure many of your listeners will be familiar with is good communication skills. I think there's a lot that's written in considerations of effective teaching about some very complex, interesting, and useful, but perhaps unnecessarily sophisticated techniques.

When really, if we could start with helping people become effective communicators that I think we'd be doing everybody a favor, the teachers and their students. At the end of the day, particularly when we're using techniques like lectures, a lot of it is telling a story with the appropriate arc, with the appropriate visual aids, and the appropriate performance.

If we could help people with that and be unashamed of the fact that, that's a lot of what we're doing, then I think everybody would benefit. We've all learned a lot from watching TED Talks and David ... documentaries, and they are basically lectures, but they're just done very well with good communication skills.

[00:31:05] Bonni: Boy, that real powerhouse is when we can combine those great communication skills with what we know about retrieval practice, with what we know about cognitive load. I can see how these are all fitting together [chuckles] in terms of, layering them on top of each other. It's not one or the other, it's that layered approach that at least in my experience works really well.

Well, this is the time in the show where we each get to share our recommendations. I wanted to share an article that someone shared on Twitter, it's called why students do not turn on their video cameras during online classes and an equitable and inclusive plan to encourage them to do so.

We've had lots of conversations during this pandemic. I suspect they could even continue well beyond when this is all far behind us about, I think it comes from a really good place as wanting to engage in and knowing what that feels like, but trying to do a direct copy-paste from what we think we actually experienced in the classroom.

I would even question the premise of some of the ways that people talk about that. It's as if people think you could measure attention simply by looking at people's faces. I do that very naturally. Are they laughing? Are they smiling? Do I have eye contact all of that?

It comes from a good place, but then when we get in the context that so many people were quickly transitioned to of teaching synchronously online, wanting to have the exact same experience isn't working out really well.

Anyway, I just found this article really fascinating, really good stuff that many of you have already heard of, but just very research-based and ideas for how to accomplish some of the aims that people are hoping to, without some of the real downsides of a blanket requirement and without understanding empathetically why people might not want to turn their cameras on.

That is something that I know for myself I didn't have a fine enough appreciation for what would be some of those reasons and not living in similar circumstances to be able to have the proper empathy that I feel like I do now, at least better than I did

when all this started. That's my suggestion is that people check out this article and I'll post a link to it in the show notes. I'm going to pass it over to you, Phil. I know you have some recommendations as well.

[00:33:37] Phil: I do. I'm fascinated to read this article myself because it's certainly something that I wouldn't say I necessarily struggled with, but it's been up and down for me as I've taught a new class this semester. There have been times around talking to this sea of black squares with a little white text on.

Oddly enough, the thing that I found really helped me was retrieval practice, not in a very formal and official way, but you just build it in lots of little questions every now and then. Then students love answering questions, even if it's just a gentle quiz.

Then you get the little answers in the chat and then you'll know they're there. Even if you can't see them, and you're just talking to your fireplace, you know that they're there. I found that really did help me a lot. Then the classes where I forgot to put those questions in. I am literally talking to myself for two hours.

[00:34:27] Bonni: I have found that to be so helpful. Then the other thing I have found helpful, this to me, Phil is weird that I didn't figure this out, or at least be as cognizant of it as I would have liked to have been one of my approaches that I would go back to regularly when teaching in a classroom would be to change things up.

"Okay, now, we're going to take out our phones." Then I've got this little game or a little poll or whatever. "Okay, now, we're going to put our phones away. I'd like you to take out a piece of paper and a pen. Oh, you didn't bring any with you? I've got some extra paper with me. I've got some extra pens and just that, or we're going to go up, and here's a sticky note. I want you to write down something and then go up and post it."

Just constantly, both physically moving around the room, or "Now, we're going to listen to something. Now, we're going to be silent for a few moments." Just that constant changing it up, I didn't always think of it quite in that same way, or maybe I didn't feel like I had as big of a repertoire at first.

Part of it, you were talking about lectures earlier. I think sometimes I'm so hesitant to do the lecture. That's not my go-to. It's like, no, actually now I'll find it even more freeing to say, "Okay, for the next 10 minutes, I'm going to be explaining something. Feel free to turn off your camera. If you've got a paper there, you can just jot some things down. I'm going to be talking for about 10 minutes," and to feel okay.

I don't constantly have to be doing 100% retrieval practice to free that up a little bit, but then to say, "Okay, if you're comfortable and you're in a place to this, I'd love to have you turn your cameras back on now. It's not constant camera on feeling like the focus is on me, that changing back and forth between that, I found a little bit free and as I got in a groove with things in these last six months or so.

[00:36:12] Phil: Recognizing that, I guess, reflecting on what it is you actually do in a teaching session versus what you think you're doing. Then recognizing that, doing lots of different little things, talking about different things.

Even just lecturing on different topics, if you do a lot of talking is a really important part of that. It is a lot harder or at least it's difficult being a difficult transition for it, doesn't it? Even just telling students to go take a break and make a cup of tea, and then coming back with your own mug is-- we've learned a lot, haven't we?

[00:36:46] Bonni: Yes, we have and so much more to learn. [laughs]

[00:36:49] Phil: We were talking about this before we came on and I-- when I came on before, the thing that I recommended was honestly to get a dog because it was so helpful to me having a dog as a way of getting myself out of the house, having some free times and me time, just to think about things.

I thought I can't possibly come on and recommend getting a dog again, but then our dog dies. It was a very difficult time as anyone particularly has got young children and a dog, and pets will know. Then recently, we've got ourselves, another dog and it's really brought home to me, the importance, particularly in the current situation we find ourselves in as a planet of being forced to go out and get outside, to go for a walk and just think about stuff whilst chucking a ball for an overexcited Springer Spaniel.

Then whilst doing that, I could sneak in another recommendation for, even if it's just listening to a podcast. Even though I'm a UK citizen, I love the *Radiolab*. I've learned a huge amount from the podcast *Radiolab* and I'd recommend it to anyone who just wants a different take on many of the interesting and controversial things that we find ourselves thinking about as society. *Radiolab* is an amazing take on those. An hour or so with a dog and *Radiolab*, all will be well with the world.

[00:38:13] Bonni: Phil, I'm so glad to have been able to have this chance to talk to you again all these years later. I hope that it doesn't take this many more years for us to get back in touch. I'm so excited about all the things that you're researching and just so engaged by what you shared. I'm excited about sharing it with the listening community.

[00:38:29] Phil: I love to talk to you again soon, Bonni, and to anyone who'd like to listen.

[music]

[00:38:37] Bonni: Thanks once again to Phil Newton for joining me on today's episode of *Teaching in Higher Ed*. If you'd like to check out the show notes they're at teachinginhighered.com/363. If you'd like to receive those show notes in your inbox once a week, you can head on over to teachinginhighered.com/subscribe.

That subscribes you to the weekly update, which has the most recent podcast show notes in it. Also, some other recommendations beyond what we talk about on the show, some quotable words, and other resources. Head on over to teachinginhighered.com/subscribe, and thanks so much for listening to *Teaching in Higher Ed*. I'll see you next time.

[music]

[00:39:37] [END OF AUDIO]

The transcript of this episode has been made possible through a financial contribution by the Association of College and University Educators (ACUE). ACUE is on a mission to ensure student success through quality instruction. In partnership with institutions of higher education nationwide, ACUE supports and credentials faculty members in the use of evidence-based teaching practices that drive student engagement, retention, and learning.

Teaching in Higher Ed transcripts are created using a combination of an automated transcription service and human beings. This text likely will not represent the precise, word-for-word conversation that was had. The accuracy of the transcripts will vary. The authoritative record of the Teaching in Higher Ed podcasts is contained in the audio file.