Leading Learning Podcast
Episode 278

Jeff Cobb (00:00):

To thrive in the learning business, what you deliver has to be effective. It has to get the learners to where they're supposed to go, and that's what applying learning science can make happen for your learning business. I'm Jeff Cobb.

Celisa Steele (00:16):

I'm Celisa Steele, and this is the Leading Learning Podcast.

Jeff Cobb (00:27):

Welcome to episode 278 of the Leading Learning Podcast. This is the last part in our seven-episode series on learning science's role in a learning business. In episode 272, we defined learning science and talked about its central role in the success of any learning business. Episode 273 focused on cognitive and behavioral psychology, and episode 274 focused on market assessment and learner needs assessment.

Celisa Steele (00:55):

Episode 275 focused on content design, where learning science can take the leading role in helping designers and developers determine what to include and what to cut and many other aspects of a learning experience. In episode 276, we turned to practice and feedback, two critical and proven tools in helping learners. Then, in episode 277, we talked about evaluation and evidence-based ways to help determine the impact of learning programs and products.

Jeff Cobb (01:29):

Now those are all interesting topics as is learning science itself—at least learning science is interesting to us—but we want learning science to be more than interesting. We want you to do something with it. We want you to apply learning science to make your learning business more successful and more impactful.

Celisa Steele (01:49):

We want you to apply learning science to make what you offer to learners more valuable and have a greater impact in their lives and work, so we're devoting this final episode to application.

Jeff Cobb (02:02):

To help set the stage for talking about application and because we know repetition, especially spaced repetition, is important for learning, let's revisit some comments from the five experts we interviewed specifically for this series.

Celisa Steele (02:16):

Specifically, we want to recap how each answered the question when we asked them what one tenet or aspect of learning science they wished was better understood by those designing and delivering learning for adult lifelong learners.

Jeff Cobb (02:32):

I spoke with Megan Sumeracki, co-founder of The Learning Scientists, for the episode that focused on behavioral and cognitive psychology. Here's her answer.

Megan Sumeracki (02:43):

It's an unfortunate point, but it's one that I think that everyone really needs to know and needs to embrace is this idea that when we are in the moment learning, and we are making our own judgments of how well we're learning—so making assessments, "Am I understanding this? Am I going to remember it in the future?"—we're actually really bad at putting ourselves in the future context and actually realizing how well we'll do in that context.

Celisa Steele (03:14):

We're bad judges of our own learning. That's a significant finding. It shows that we can't just ask learners if they're getting it and if they'll be able to do it when the time comes for them to do it. We need to get them to try to do and then see. That's when we'll know—and that's when the learners will also know—whether or not they've really learned it.

Jeff Cobb (03:37):

I feel like this has been an affliction that I've really suffered from personally in my own life and learning. I don't know how many conference sessions or college courses or even just reading—probably mostly reading—where I think I've learned something, but, when it comes to actually recalling it or actually putting it to use, it's just not there. I think you're so right to point out about asking learners to demonstrate that they know something by doing it. That reminds me of what learning designer and technologist Myra Roldan said when you asked her what aspect of learning science she wishes those designing and delivering learning for adult lifelong learners better understood. Here's Myra.

Myra Roldan (04:19):

So this whole concept of learning by doing. So a lot of instruction that you see out there in the world, whether it's in higher education, workforce development programs, even these free e-learning courses or paid courses that you can take, they really focus on theory. So helping you to understand a concept. Where they fall flat is on this whole concept of hands-on. What do you do with that? How do you apply it? What are the scenarios in which you apply that? So I have this whole framework that my team uses and that we've developed around this whole concept of application, taking something from theory and being able to apply it in a real-world setting. And that's where a lot of programs fall flat. Every single educational initiative that I've evaluated over the years, they fall flat on this whole concept of, okay, so now you do this, but how do you use it? Right? So the application piece, I think that's really important.

Celisa Steele (05:18):

I see a connection between what Megan homed in on and what Myra homed in on. It's cause and effect—or at least a logical consequence. If learners aren't good judges of knowing if they've learned something or not, you then need to give them opportunities for doing things,

for trying things out. Those hands-on opportunities allow them to not only learn but to also get some feedback about their learning. Even if it's just the feedback of "Wow, hey, I can do that!" "Or, oh boy, I don't even know how to start this task that I've been asked to do." Of course, by doing something, you have something that then an instructor can also see and evaluate and provide feedback on too. That's the overt engagement that Ruth Colvin Clark talked about.

Jeff Cobb (06:08):

I do think there's a lot of work to be done in helping instructors and helping the subject matter experts that so many learning businesses are going to use to create learning experiences learn how to do this well because it's not just any doing, any application. You really need the doing and the application that are spot-on and relevant and align with how the learner will actually use whatever they're learning in the future. That can sound obvious, and it can sound easy, but we know from our own experience in putting together courses that you've got a compacted time period where you're trying to make something happen that's as impactful as possible, and learning how to do that, that does require some support. It does require some work over time, and learning businesses, I think, really need to help their subject matter experts with that.

Celisa Steele (06:55):

Well, they do, and I think part of that is because, as we heard earlier in the series, it's because often our own experience with education and learning is not the best example. We tend to go back and go, "Okay, this is how my teacher did it in high school; I'm going to do it that way." But it's actually not always effective, the ways that we have been taught in the past. Now I brought up her name when I mentioned overt engagement just a minute ago, so let's next revisit Ruth Colvin Clark's pick on which aspect of learning science she wishes those designing and delivering learning better understood.

Ruth Colvin Clark (07:29):

I think one of the major understandings that help us would be to appreciate the limits and the strength of working memory. We have the two memories: the working memory, which is very limited in its capacity but very powerful in its processing ability. And we have the long-term memory, which is where we store a lot of the knowledge and skills that we've acquired. And so by leveraging these two memories effectively, that will lead us to a lot of the instructional techniques that we have discussed. For example, we talked about managing cognitive load through the coherence principle. We talked also about promoting engagement. With engagement, you're actually forcing the working memory to process that information in a job-relevant way and then getting the feedback on it so that you can then correct or improve your responses or say, "Hey, that's okay. I really got that information." So I think understanding the fundamentals of the mental processes involved in learning and how we accommodate those would be a useful design understanding.

Jeff Cobb (08:41):

I think overestimating the processing limits, the working memory capabilities of learning. This is one I know I've been guilty of, time and time again, and always have to pay attention to. So many subject matter experts, so many presenters, teachers, facilitators are guilty of this, really just stuffing too much into a learning experience, not taking the time to cut down to what's truly essential and what's truly reasonable for a learner to process. Of course, by doing that, allowing some of that time for doing that we were just talking about.

Celisa Steele (09:16):

Well, absolutely. I was going to say that I think really understanding working memory's limitations and limited capacity, that's really another argument for less content, which, of course, when you do have the less content, then there is more time for doing.

Jeff Cobb (09:31):

Less content really can be a beautiful thing. The limitations of working memory that Ruth brought up are also an argument for microlearning, which is a concept Brenda McLaughlin raised when I spoke with her. Brenda is CEO at SelfStudy. She's not a design and development expert like Myra and Ruth, but she and SelfStudy as a company are focused on helping organizations provide effective learning experiences. When I asked her about what she wishes more people knew about effective learning experiences, microlearning was what came to mind. Here's what Brenda has to say about microlearning.

Brenda McLaughlin (10:09):

It seems like something we're tossing around like everybody knows and understands, but it's another area people are like, "I know I need it, but I don't quite know what it is, and I don't know how to make it." I think that creating more normalcy and systems around creating smaller interactions with education. I think we're really used to building courses and textbooks and long form. I think we will become more sophisticated in creation of smaller segments of learning, so that you're not thinking always in terms of mapping to a course, but you're thinking of mapping to a competency or a skill. I think it's a different way of thinking about how you create your education. It's not so much like, even I use the phrase "We're going to chunk it up." It's not so much okay, you've got something big, and you're going to make it shorter; you're just going to do them in short sequences. It's actually a different way of teaching.

Celisa Steele (11:07):

Brenda's comments remind me of Cathy Moore's take that we really need a mindset shift to get away from content-heavy learning options and offerings that can then favor more doing instead of that content emphasis. Microlearning definitely embraces the less-is-more approach, and, as Brenda points out, to realize its full potential, it's not just chunking longer content; it's actually a different approach.

Jeff Cobb (11:37):

Really small is beautiful. Microlearning practices that. Chunking practices that. But you're right—it really is that different mindset around how do we make sure that we're shaping content in a way, that we're crafting content in a way that really does align with what working memory makes possible, that's really going to allow those instances of doing and application that are going to be so important as a part of learning.

Celisa Steele (12:04):

We asked Rob Brinkerhoff and Daniela Schroeter a modified version of what one tenet or aspect of learning science they wished was better understood. Since they're evaluation experts, we asked if they had to pick just one aspect of effective evaluation, what aspect or tenet did they wish was more broadly understood or implemented by those who are charged with looking at the impact of learning programs. Daniela emphasized performance. Here's her response.

Daniela Schroeter (12:34):

I think there has to be a focus on performance. There has to be, like, a focus on what is this learning about, and what do you want to get out of it? And is that learning actually being used?

So, oftentimes, we get stuck at the first thing—that people liked the intervention, that they learned something. Well, yeah, but so what if people loved it, but they didn't learn anything? Or people did not love it, but they learned a lot? But if they didn't use anything either way, the question still is, "What's the point in a learning?"

Celisa Steele (13:08):

In his response to that question, Rob focused on actionability. Here's what he said.

Rob Brinkerhoff (13:14):

I would say the one criterion that above all that an evaluation should meet is actionability. If we're going to do an evaluation for a client, the client's got to be able to do something with that evaluation report that's worth doing. So if you're running a learning business and you're going to divert a dollar of your budget away from your customer audience and invest it in evaluation, then we want to be sure that you're getting more than a dollar's worth of value back to help your program earn that back. So we want to know what's the return on investment of the evaluation. And it's got to be actionable. If you can't do anything with it, why bother doing it?

Jeff Cobb (13:54):

I think return on investment is such an important concept here. I think it has to be said, in most cases, learning businesses really don't know if action was taken, if that actionability was there, or if there really was a return on investment. I'm not pointing fingers at other learning businesses. We struggle with this ourselves. How do you really get at that? It's not easy territory definitely, but Rob's Success Case Method, for example, which we talked to him about in the interview with him, is certainly one approach that can be used, and we definitely encourage folks to find out more about that through that interview with Rob and Daniela. We had a session at one of our events a while back, where Mark Niles focused on using the Success Case Method, and we'll be sure to link to that as part of the show notes.

Celisa Steele (14:41):

Yes, and I want to acknowledge and thank Mark because it was actually through him that I first heard of the Success Case Method and got turned on to Brinkerhoff's work. So thanks for that, Mark. What strikes me in all that we've heard from these various experts is that they all seem to focus on taking action and being practical. There's slightly different angles on it, but I hear from all of them a real clear emphasis on, to use Rob's word, actionability. If you're looking for a technology partner to help you optimize the learning experiences you offer, check out our sponsor for this series. SelfStudy is a learning optimization technology company.

Celisa Steele (15:28):

Grounded in effective learning science and fueled by artificial intelligence and natural language processing, the SelfStudy platform delivers personalized content to anyone who needs to learn, either on the go or at their desk. Each user is at the center of their own unique experience, focusing on what they need to learn next. For organizations, SelfStudy is a complete enterprise solution, offering tools to instantly auto-create highly personalized, adaptive learning programs, the ability to fully integrate with your existing LMS or CMS, and the analytics you need to see your members, users, and content in new ways with deeper insights. SelfStudy is your partner for longitudinal assessment, continuing education, professional development, and certification. Learn more and request a demo to see SelfStudy auto-create questions based on your content at selfstudy.com.

Jeff Cobb (16:29):

Taking action is what we want to help you, the listeners, do in this episode. Keeping those views of important tenets of learning science and evaluation in mind that we heard from our interviewees, let's address more directly how to put what we've covered in these six episodes into action.

Celisa Steele (16:48):

Learning science is multi-disciplinary, as is a good learning product development process. We want to offer a framework that can help you in thinking about where and how learning science might play a more strategic, thoughtful and/or intentional role in your learning business. We've developed the MIDDLE ME learning product life cycle, and it has four phases. Market interface, that phase is about understanding what your learners need and want and communicating with them about the value you have to offer. Design and development, that's the second phase, and this is where you're doing that work to create what your learners need and want.

Jeff Cobb (17:31):

Then the third phase is the learning experience, where the learners actually interact with what you've created. Then finally, that fourth phase, measurement and evaluation, where you look at the impact of those learners interacting with what you've created.

Celisa Steele (17:46):

We abbreviate the four phases—so market interface is MI; design and development, DD; learning experience, LE; measurement and evaluation, ME—and that's how we get the oh-so-clever name of the framework, MIDDLE ME. What you can do with the MIDDLE ME framework is it can help you focus efforts among your stakeholders: the staff that you have who are charged with providing the learning that you offer, the volunteers, facilitators, the subject matter experts, and the learners. The framework really can help give you insight into what's going on at different points for each of those key stakeholder groups. With that short overview of the framework, let's look at how learning science might fit in in each phase.

Jeff Cobb (18:39):

We'll start with MI, and that again is the market interface. Market interface is all about knowing and connecting with your audience—your learners and customers and your potential learners and customers. Here's where the learner needs assessment and/or market assessment come into play. Here you're going to need to have your internal team, your staff, engaged to conduct the assessments. Of course, learners will be involved because you want to make sure you're collecting data to verify your understanding of the market and what learners need and want. Then once you have the results, especially of a learner needs assessment, you have to make sure to share that with your designers and developers.

Celisa Steele (19:23):

That's because the next phase, design and development, that's where those designers and developers are going to plan and create the products and services that your learners need and want. So they need to know what you found out in that learner needs assessment. This design and development phase, along with the next one, the learning experience phase, those are the two most obvious places where learning science plays a role. But, of course, you have to know about and be aware of learning science in order to apply it. This is where you're going to start taking some of the specific techniques that have come up in the conversations during this series.

You're going to do things like cut and chunk, and that's going to help with the limitations of working memory. This is where you're going to do the work to scaffold in practice, so that learners aren't just passive or getting theory only, but they have to engage and try things.

Celisa Steele (20:16):

As you said earlier, Jeff, it has to be certain things that they try. It has to be things that are actually relevant and helpful. It can't just be, "Go try this on your own now." The main stakeholder group involved in this design and development phase, that's the people doing the design and development of your learning experiences. If you are lucky enough to have instructional designers on staff, then this work here may be a bit easier. You're just going to need to make sure that the instructional designers are up to speed—and stay up to speed—on learning science and some of the most effective approaches to learning.

Celisa Steele (20:53):

If, however, you rely heavily on volunteers or subject matter experts, and this can happen a lot, even in large, well-heeled organizations, for the sessions at their annual conference, for example. But, if you're relying more on those volunteers or subject matter experts, then your work may be a little harder. You may have to spend some time figuring out how do you get them up to speed on some of the key aspects of learning science and what makes for an effective adult learning experience, and/or you may need to provide some checks, where you have some staff people maybe reviewing process documents along the way to see what they're putting together or other supports to just help them do as good a job as possible in delivering learning.

Jeff Cobb (21:39):

My experience has always been that the subject matter experts often are very well attuned to the market. They've got a sense of what's going on out there because they're usually part of the market themselves, but they need that learning science help. The professional instructional designers, on the other hand, often know the learning science. They know what should work with learning, but you've got to make sure that they're really tuned in to what you found out in that market assessment and that they really get your particular market. Then, if you get all that working well, then you wind up with our next phase here again, which is LE. It stands for learning experience.

Jeff Cobb (22:11):

The learning experience phase is where the rubber meets the road basically. It's where learners interact with what you've designed and developed based on your market interface. Mostly you have to make sure that good design and development, good DD, doesn't get thwarted. This is also where feedback and practice happen. Stakeholders here are the learners and those supporting them in the moment. That means the presenters, the facilitators, the instructors. You want to be thinking about all of those different components of that actual learning experience. Again, make sure all that effort you've made in assessing needs, assessing the market, doing good design and development actually plays out in the experience.

Celisa Steele (22:58):

Then we get to the final phase, the measurement and evaluation phase, ME. This is where we're looking at the impact of learners interacting with what we've designed and developed. This is where we measure and evaluate products and services and always trying to do that with an eye to what business insights will that give us. If we think about what we heard from Rob Brinkerhoff and Daniela Schroeter, this is where you can look for evidence of the impact of the

learning experience. In particular, they might suggest that you look for both success cases and failures and analyze those because Rob and Daniela really believe that outliers have a lot to teach us. Again, they feel like the average can wash out too much, and so they often urge us to look to successes but also failures. Then, in what you're collecting, also be thinking about all the different ways you can leverage that information, that insight. It can help you market your products and services. It can help you improve those offerings. It can help you make the case that you're definitely providing value to learners.

Jeff Cobb (24:10):

So we're providing this MIDDLE ME model as a tool because we think it can be a simple framework for helping you put learning science into action and providing those education and learning experiences for your adult lifelong learners that are really at the core of being in a learning business. To thrive in the learning business, what you deliver has to be effective. It has to get the learners to where they're supposed to go, and that's what applying learning science can make happen for your learning business.

Celisa Steele (24:41):

Learning science, as a science, is grounded in evidence. That evidence-based approach is really consistent with how Jeff and I tend to approach life and work. There's intuition, of course, at times, but we really strive to try and test and study what's working or not working and why.

Jeff Cobb (25:02):

So now the ball's in your court. We hope you'll choose at least one action to take in at least one of the four phases of that learning product life cycle, the MIDDLE ME model. Pick something to try in market insight, design and development, learning experience, or measurement and evaluation, and then look at the results. Use the evidence you gather to grow and improve your learning business in general and your offerings in particular. Get out and do/try/measure something so you can get some evidence that will allow you to test ideas and hypotheses and make informed decisions throughout MIDDLE ME.

Celisa Steele (25:40):

Learning science has the potential to help you across the board with the reach, revenue, and impact of your learning business. It'll help you as an organization be more successful. It's going to help your learners be more successful. It's going to help the field, profession, or industry that they're working in do better. Then, of course, those served by the learners are going to fare better as well. It really is a win-win-win-win when a learning business can really leverage learning science.

Jeff Cobb (26:19):

This is the last episode in the seven-part series on the role of learning science in a learning business. We hope you've enjoyed the series, and we'd love to hear your feedback and suggestions for the future. You can leave a comment at leadinglearning.com/episode278 or e-mail us at leadinglearning@tagoras.com.

Celisa Steele (26:39):

We'll resume releasing episodes of the Leading Learning Podcast with a new series starting in October 2021. That means you have some time to experiment with infusing learning science more intentionally in your learning business before the next new series airs.

Jeff Cobb (26:55):

The archive of hundreds of past episodes is always available on the Leading Learning site, and at leadinglearning.com/episode278 you'll find show notes, a transcript, other resources related to this series, and options for subscribing to the podcast. To make sure you don't miss new episodes, we encourage you to subscribe, and subscribing also helps us get some data on the impact of the podcast.

Celisa Steele (27:21):

Recommendations offer evidence of the podcast's impact, so please take a minute to rate the Leading Learning Podcast on Apple Podcasts. Jeff and I personally appreciate it, and those reviews and ratings help the podcast show up when people search for content on leading a learning business. Go to leadinglearning.com/apple to leave a review and rating.

Jeff Cobb (27:42):

We encourage you to learn more about the series' sponsor at selfstudy.com.

Celisa Steele (27:48):

Lastly, please spread the word about Leading Learning. In the show notes at leadinglearning.com/episode278 you'll find links to us on Twitter, LinkedIn, and Facebook.

Jeff Cobb (27:59):

Thanks again, and see you next time on the Leading Learning Podcast.

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