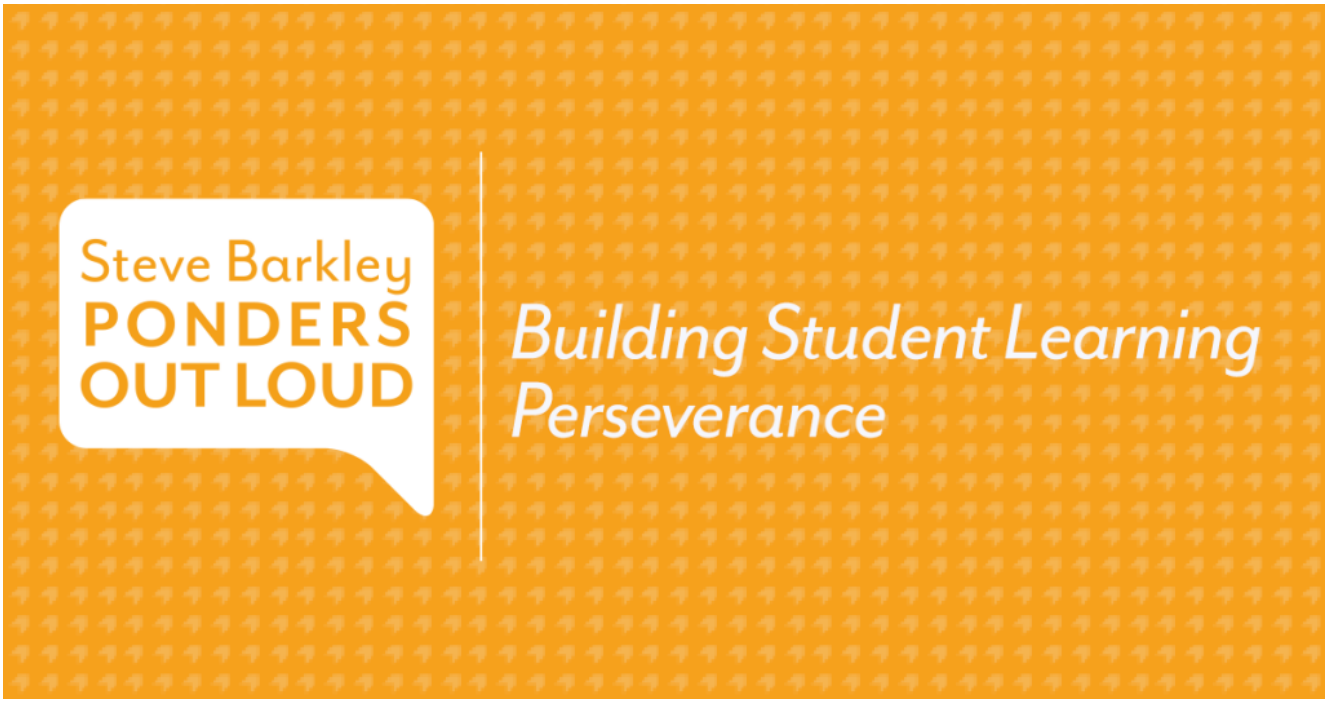
Podcast: Building Student Learning Perseverance



Have you witnessed this in your classroom or had teachers share it as a coaching request? *"When the cognitive load rises, many students default to learned- helplessness or passive habits. I see it in the quick, 'I don't get it' before they have engaged with the problem, in the immediate search for confirmation rather than justification, and in the quiet waiting for me to circulate rather than making an initial attempt."* Science teacher-leader, Colin Simpson, shares his observations and strategies implemented to build student learning approaches.

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Podcast Transcript:

[00:00:00.300] – Steve [Intro]

Hello and welcome to Steve Barkley Ponders Out Loud. Together, we'll explore ways to support teacher growth, elevate your coaching practice, and boost student success. Each week, I'll share my own insights as well as conversations with inspiring guests to help you lead with confidence. Thanks for listening.

[00:00:30.000] – Steve
Building Student Learning Perseverance. I'm pleased to welcome Colin Simpson to today's podcast. Colin is a teacher leader and Department Head of Science at the American Cooperative School in Tunis. I've had the pleasure of learning and exploring teaching, coaching, and leadership with Colin over the past few years. He completed a microcredential in instructional coaching, and Colin worked to extend coaching experiences among his department and his staff. I follow Colin on LinkedIn, and I ask him to join me for a conversation when I read the following post: "I noticed something this semester in my grade 10 class. When the cognitive load rises, many students default to learned helplessness or passive habits. I see it in the quick, 'I don't get it,' before they've engaged with the problem, or in the immediate search for confirmation rather than justification, and in the quiet, waiting for me to circulate rather than taking an initial attempt." Colin, thanks so much for agreeing to join me.

[00:01:43.920] – Colin
Well, thank you for having me. I'm looking forward to having a talk about this.

[00:01:47.640] – Steve
Well, first phrase I pulled out of what you said was cognitive load. What's your description of cognitive load?

[00:01:56.060] – Colin
So cognitive load, even going back to the idea of cognitive load theory, is something that I've actually been working with since before I was a teacher. So teaching is a second career for me. I used to be in training as a commercial pilot and

worked in the industry for a short time. One of the things that they always taught us was about the cognitive load of flying an airplane. You have to become an expert in the little systems so that you have the space in your brain to deal with the emergencies when they happen. You don't have time to think, you have to be able to react. That was my initial introduction to it.

[00:02:33.080] – Steve
Wow – that's new for me. Thank you.

[00:02:37.260] – Colin
I had to leave some surprises here. It really comes down to the idea of when an emergency happens, you have to be trained to recognize those key symbol ideas of what's happening and then react before you really have a chance to think through it so that you can gain the time later to work through the problems. And so transferring that to an educational perspective, it comes back to the… There's three concepts of cognitive load theory and how your brain works with your working memory. And then there's the extraneous pieces that are going on, which are distractions or design the lesson that doesn't flow nicely. The kids are distracted and losing what they're focused on. And then there's the actual period where you're going to be getting your growth. It's where you are making those connections to your previous learning and pushing things a little bit further. What I'm seeing with my students is that they are getting overwhelmed very quickly. Rather than trying to make those connections to their prior knowledge, when that overwhelmed state is happening, they are following back on rote learning that they have done that has worked in the past.

[00:03:58.960] – Colin
When I get stuck, if I wait, the teacher will take up the answer on the board before they ask me anything. That's where I started this year off with that grade 10 class.

[00:04:10.680] – Steve
A couple of things are coming to me. I generally see this when I'm looking at math instruction. In math, the student looks at the problem, and if it doesn't immediately look like a problem we've been taught to do, then I can't do it. There's no series of questioning or a problem attack that steps in.

[00:04:41.340] – Colin
Yeah, that's the traditional one, right? The student learns how to do the multiplication problem when explained as multiplication. But when you throw it into the word problem, everything fell apart. That's the one we've all been classically trained as teachers of how do we deal with these things. The traditional bit has been that scaffolding. You teach the kid with that scaffold in place, and sometimes it's broken down in the problem, sometimes it's a separate page, sometimes it's a poster on the wall, but it's, okay, you identify the numbers and then you work your way through it. That works really well. But what I noticed is I had my grade 10's come in the start of the year, and I didn't know what scaffolds had been used the previous year. We hit that point. This is when you hit that, the scaffolds take away too easily, you end up into that idea of learned helplessness because they're seeing that their effort isn't changing the outcomes, that they get that low self-efficacy of, I can't do it, and then they give up or zone out.

[00:05:49.360] – Steve
I can't pull up the numbers in my mind exactly for you, but the history tells students that the amount of time that you have to wait in a math class for the teacher to help, it was minimal. I mean, it was extremely minimal. So that behavior gets internalized rather early.

[00:06:16.560] – Colin
Yeah. Even I'm guilty of that knowing that that appropriate wait time is a master skill that every teacher builds, and we still always need to improve it. I'm sure when you've been in

coaching on that, even people who have been teaching forever still have those moments of like, wait, you didn't give them enough time to think through their answer there.

[00:06:39.420] – Steve
Yeah. That's because our focus is on getting to the right answer. Almost our ego gets struck when the kid gets to the right answer, regardless of how they got there.

[00:06:54.220] – Colin
Yeah. It's tough to really train your mind around the idea that the journey is the most important part of all of this learning. Because you get the kid, why do I ever need to learn this? I'm never going to do blank in the future. But you are wiring the pathways in your brain for problem solving. You are building that resilience, that grit, all of those wonderful traits we look for. They require this. I think it's the best part of a broad educational background and that broad educational setting where we don't allow kids to specialize early because you never know what subject is going to help them grow the most in the area that's most important to them.

[00:07:41.580] – Steve
In the piece that you had on LinkedIn, you described that the student reactions aren't signs of inability, but patterns shaped by those past experiences with over scaffolding. That's the part we're hitting here. Answer first instruction and environments where mistakes felt high risk. What do you mean by answer first instruction?

[00:08:08.560] – Colin
Well, I think that's any place where the answer is the most important part. We don't talk about the process. We're not grading the process. We're grading the final results. And places with high stakes testing, that's your IJCSEs, or it's your DP exams, it's your SATs, aall of those things do not put any value on the process. That's what our kids are training for. It doesn't matter what system you're in. We all have

those standardized exams that don't value the process. Somewhere along the way of instruction, we lose that focus on process and really start to put that answer as the most important thing, even if it's only subconsciously in the teacher's mind, because you want the kids to be successful on whatever test it might be.

[00:09:03.620] – Steve
You describe environments where mistakes felt high risk. How do you think we end up getting to that? I don't think there's any teacher who's attacking that purposefully. Nobody's purposely trying to make that environment where I'm going to scare you into learning or working harder. How do we get to that sense of fear of making mistakes?

[00:09:30.500] – Colin
I sometimes wonder that a lot myself. For those who don't know me, I teach also in the IB diploma program. I have both a physics and a chemistry section. When we have very full curriculums, we don't have a lot of time for that relearning that sometimes needs to take place. I think that's where those high-risk environments grow up is that we have a finite amount of time, we have a large amount material and skills to teach. At some point, we all make that decision of, is it more valuable to go back and reteach these basics that X percentage of my students need to know, or do I have to move on to make sure that I give the best full broad coverage of everything for the other students? At the end, it becomes a bit of high risk that one because you don't get the second chance that you might want.

[00:10:34.700] – Steve
You triggered that for me. It's almost the teacher being in the high risk that passes the high risk on to the kids.

[00:10:42.260] – Colin
It sometimes is. Those are all external to the classroom, which makes them really hard to make effective systematic

changes within the classroom, within your students and all of that. I've tried through things like allowing retests through demonstrations of improved skill before we schedule a new opportunity, all of the positive mindset language of, okay, you're not there yet, but how do we get you there next? Unfortunately, I almost feel like that's had a counterintuitive approach with some of my students in that by taking some of that stress off at the wrong place, they don't put the effort in as well. I'm still looking at trying to gather enough data for this, but I don't know if it's been beneficial because the results don't seem to look that way.

[00:11:35.100] – Steve
The pressure off, but the effort on is the challenge.

[00:11:40.640] – Colin
That would be the Holy Grail that we're looking for, finding that intrinsic motivation in all the students. It's everything we're all trying to do. I don't think there's a single teacher out there who enjoys what they do, who isn't trying to do this, but we're all struggling.

[00:11:58.920] – Steve
It's almost like It's almost like the learning or the mastery needs to become the reward or where the student is getting this sense of satisfaction from pulling off the mastery rather than… I don't have the right words. It's like getting the right answer isn't where the satisfaction comes from. It's figuring out the right answer is where the student needs to find the satisfaction.

[00:12:33.740] – Colin
Yeah. It's a struggle. We're now getting into about a month away from the end of semester. I wrote that post reflecting on the end of a first quarter. I did have some success. I think some of the things that I was able to do was I listened to some of the scaffolds they had been using before, and I brought those back, but under conditions. I redid the

curriculum that I was working with and chose a different set of slides and practice problems for teaching the content. This is a good time to give a shout out to the New Jersey Center for Teaching and Learning, who makes a wonderful material available for all maths and sciences completely free. It gave me a great foundation to make a really big change easy. Where it worked out well is that these questions that I was using were scaffolded in their own way. They were grouped by topic, so we had chunking happening. They were scaffolded as they got more difficult as we go along. You get down to the end where we're having a full holistic review without the scaffolds. That's normally where I found my students falling apart because they're taking it away.

[00:13:51.620] – Colin
But by working through those processes and each subtopic, pulling the scaffolds away a little bit further and further, we switched over to our chemistry subtopic. Everybody is probably a grade level higher on our scale here because they knew what to expect, even though the themes changed from physics to chemistry, the process we were using didn't. I went back to all those elementary and middle school techniques that were ask three before me. I put big whiteboards out on each group table. Before they could call me over for a question, I needed to see visually that everybody at that group before had put down their thoughts of what they think needed to be happening. I didn't make it easy to come to me. I had to, and I'm still training myself on this one, the response to, "is that right?" Became, "You tell me." Which became shorthand for, use your processing, the steps that we've used, walk me through your problem solving and you tell me how you got to your answer, and then you tell me if you feel confident in it. It took a lot of work.

[00:15:10.180] – Steve
I was going to ask the question, what do your students need to learn how to do? Because it sounds like you were modeling for

them or the scaffolds were providing for them,e ventually, the things they needed to do themselves when the scaffolds were gone. Does that make sense?

[00:15:33.300] – Colin
Yeah, I think. And what they need to learn is what we're all trying to teach them. But the thing that clicked into my brain as I was getting ready for our conversation today is in my 12 years now of teaching, I have had countless administrators come in for observations. One of the questions is always, how do you differentiate? What are your scaffolds are you using for your students? I have never once been asked, what is the exit strategy for those scaffolds? I went back and I looked at some of my teaching college notes because I still had them. Everything was scaffolded were meant to be temporary. It's right there in the notes for that I have from teachers college. Going back 13 years ago. Love the digital age – I can pull those things up. Never once in my professional career was that side given any air time or any focus. We've all been told about all the differentiation techniques we can all the different ways we can scaffold things. We can do it visually, we can do it with checklists and so on and so on and so on. Not once has there ever been anything about how to get rid of them.

[00:16:42.020] – Colin
How do we move past them?

[00:16:43.760] – Steve
Yeah, how and when and actually teaching the student the purpose of the scaffold. We're scaffolding your learning. We're scaffolding how to learn and not scaffolding getting to the answer. Does that phrase work?

[00:17:04.400] – Colin
Yeah, I think that's it. This has led to some really interesting conversations with my peers here, my colleagues, because we're all dealing with the same thing, but nobody's

been talking about it. When I brought up this idea of what's the exit strategy, you could see a light bulb come on as people realized, oh, I don't have one. There's no judgment on that because that's a product of system that we're working in. Sometimes it takes the village to come up with the right idea to move us forward. Going forward from here, I'm going to be asking a lot of people, including my learning Learning Services team, my learning specialists, about what can I do to learn more about exit strategies on my scaffolds? How do I make sure that when I get my kids to the end of the year, their assessments that their grade of what they are able to do in our mastery-based programming reflects what they can do without the scaffolds. Maybe that also includes putting together a bit of a note that I pass on to the next teacher of, these were the scaffolds that I used along the way. If they regress, if they find that they're struggling a bit more, these are comfortable tools for them.

[00:18:27.980] – Colin
Maybe that gets built into a school a worldwide document. I don't know. But for the first time in this year of dealing with this, I now feel like I've actually got partners to work in.

[00:18:41.120] – Steve
I'll tell you, I'm so glad that I sent you a note and ask you to connect. I've been at coaching for a whole lot of years, and no one's ever come to me with that question of how do I begin to take the scaffold away. Now, I can tell you the one that I pushed, as I started pushing years ago, that I thought it was more often that we had a problem from teachers over-scaffolding than from under-scaffolding.

[00:19:14.340] – Colin
I believe it. Because when you scaffold for your differentiated learners, you're building the scaffold for, generally, your weakest student. You want to make sure that they're there. Then a phrase that I've written down in my

teaching college notes of what's good for one is good for all. Suddenly, you've got these scaffolds that you've built for your language learning student who doesn't know the definitions of words or the student with dysnumeria, dyscalculia. All of those things are there and made me realize how many students I had robbed of the opportunity to build those problem-solving skills. What did that mean for the students that I had sent on to universities elsewhere where they don't have those scaffolds? v

[00:20:19.160] – Steve
Yeah. If we look at the skills for the kids to develop, the empowerment… I'm seeing the empowerment two ways. One is, if I need the scaffold, do I know how to go about requesting it, finding it, getting the support that I need, but then also recognizing the need to push myself to the next step? I know there's a skateboard video clip to be looking at here as to when is the new learner scaffolding the new piece they're learning? When do they know to let go that scaffolding? Because if I don't let go the scaffolding, I can't go on to the next piece. I'm afraid what we've done is teach the kids the safety isn't hanging on to the scaffolding, hanging on to the support and missing that next growth piece.

[00:21:24.180] – Colin
It's almost like we're all riding bikes around with training wheels on. We've never gotten to the stage for those to come off. It's interesting because, again, this all then ties into that learned helplessness that I thought was the initial problem. It wasn't. It's definitely – there's underlying causes to this. But that learned helplessness, when you have these kids who are getting these repeated failures from these systematic issues, then they get this I can't do attitude. They're going to give up, they're going to zone out, they're going to wait for the teacher to take up the answer, they're going to write it down, and they're going to feel like, oh, I can do that because I saw how it was done. It's the transition

from the I see to I do where we reinforce that cycle. We're not going to get out of it unless we have a supportive culture within the classroom, but also within amongst teachers, because it's not easy for me to sit there and say, there are students there that I have had in the past who I now know that I failed in those problem solving issues that they went on towards, I contributed to them.

[00:22:35.060] – Colin
I didn't necessarily start them. I didn't make them necessarily better or worse, but I definitely contributed somewhere in there. We got to have that supportive culture. We need to make sure we're putting that focus on our effort and process and work on, I guess, teaching resilience if you want that buzzword to fly in there because it is changing that idea of I can't to I could try whatever strategy they want to use.

[00:23:05.540] – Steve
I worked with a advanced math teacher, and his statement to the kids were, if I send you to the board to do a problem that you know how to do, I've wasted your time. So he communicated to the students, I'm looking at you, I'm thinking about what you know, and I've picked this problem purposely for you because I think you're not walking up to it knowing how to do it. No, I got a belief that you can figure it out. You can struggle with it. That's where my belief is in with you. But if I sent you up there to illustrate that you can already do this, we don't have the time in the classroom for that.

[00:23:49.680] – Colin
Yeah. My saying that parallels along that amongst my physics class, at least, is I always joke with the reason why physics is felt with a P instead of F is because that P is for the partial points you're going to get to make yourself successful.

[00:24:04.730] – Steve
[laughter] That's great.

[00:24:09.360] – Colin
It’s not about getting the right answer. It’s about building the process along the way We’re trying something maybe a little bit unique. Then if it doesn’t work out at the end, we’ve still learned something. We’ve learned that that law of physics doesn’t apply in that direction, or mathematically, there is an issue, but maybe that process actually works when we bring in the right math tool. What works for algebra doesn’t necessarily work for when we hit calculus, but there’s things that calculus can do so much better than the algebra could.

[00:24:41.600] – Steve
It seems to me that one of the challenges for us is, as we develop these skills in our students, the payoff in their grade doesn’t likely show up early on.

[00:25:00.580] – Steve
So we got to be able to point out to students what they’re learning from a skills vantage point. We need to be reinforced that what we’re doing is getting us the payoff and then believe that increased academic success comes later.

[00:25:21.700] – Colin
Yeah. I can almost hear everybody who’s listening to this thinking about those parent emails and phone calls coming in about, what do you mean my kid’s grade is going to get worse for the next three months while we focus on this because they’re applying to this school or they are trying to do that.

[00:25:38.960] – Steve
I don’t think their grade has to get worse.

[00:25:43.360] – Colin
No, but sometimes it does. Learning new strategies, learning how to focus through this does take some minor setbacks. Growth is never fully linear. My favorite one for this is there’s a graph that gets shared around as a meme about

learning a second language. Overall, it’s a nice overall growth. But there’s some really big regressions along the way where you can have one day where you’re speaking fluently, and then the next day, you can barely string a sentence together. That’s learning. We have to recognize that setbacks, whether they’re documented as grades or not, are part of the process. That’s part of learning, trying, and failing, and growing from that failure. If we’re too scared as parents, as caregivers, as teachers, to have those grades recorded as setbacks along the way, we’re never going to come to the moment of working through the pain to get to the goal on the other side.

[00:26:47.160] – Steve
We really got to live through the same perseverance for growth that we’re hoping to develop for the kids. We need to take the time, the trial and error, the reflection.

[00:27:01.080] – Colin
Just like we would expect a math teacher to model the math problem on the board, the English teacher to model how you put together a paragraph, all of those things we’re modeling for the students. We need to be able to model this development of perseverance and grit and dealing with the stumblings, being able to say in the middle of a lesson, you know what, guys? This is not working the way we hope it is. Let us try and reset this, and we’ll come back next class with a different approach. That scaffold didn’t work or we took that scaffold away too soon. However, we want to name it in front of them. It’s humbling.

[00:27:38.780] – Steve
It’s making them more of a partner in the learning process. Almost, I can point out that my thought was this was going to provide this, and it didn’t. Just the way you thought this approach to a formula was going to take you there, and it didn’t.

[00:27:56.260] – Colin

Yeah, it’s all there. My biggest one with my grade 11 and 12 students in the diploma program is, okay, so we get to a bad test. And so your preparation and your study skills, what you were doing to get here, didn’t work out. What change are you going to make to expect a different result the next time? Because we’ve already proven that pathway didn’t work. Can we learn from it? Because that’s the growth we need.

[00:28:27.160] – Steve
Well, Colin, thank you so much for joining joining me in this conversation. I knew that I was going to enjoy it, and you certainly delivered. Is LinkedIn the best place for people to touch base with you if they got questions or would like to follow the conversation along?

[00:28:45.540] – Colin
Yeah. And if anybody has some strategies or some ideas or some recent research that goes along this way, I’m just starting in this journey. And so anybody who’s a few steps ahead, if they want to give me a bit of guidance, I’d love to hear it as well.

[00:29:00.660] – Steve
I will keep on the look out for that for myself as well as for you. Thanks again.

[00:29:06.600] – Colin
Thank you so much, Steve.

[00:29:09.820] – Steve [Outro]
Thanks for listening, folks. I’d love to hear what you’re pondering. You can find me on Twitter or LinkedIn at Steve Barkley, or send me your questions and find my videos and blogs at barkleypd.com.