

**Episode 51: The Neuroscience of Practicing with Dr. Molly Gebrian** 

#### Christine Goodner:

Welcome everyone. I'm really happy today to be talking to Dr. Molly Gabrielian and we spoke on, I was looking it up, episode three of this podcast back in 2021. We recorded it, if I'm remembering correctly, part of that conversation, at least when we weren't hitting record yet, you were starting to work on a new book that is now out in the world and just been published, and I'm so excited to be talking about it today. It's called "Learn Faster, Perform Better: Musician's, guide to the Neuroscience of Practicing". And we're going to talk a little bit about some of the ideas in this book today and also just practice. If you haven't heard Dr. Molly Gabrielian talk about practice before, go back and listen to that episode three of this podcast. You can find her on YouTube and we can share some of her other resources together today. But Molly, I'm really happy to have you here today and welcome back to the podcast!

# Molly Gebrian:

Thank you. Thanks for having me back. I didn't realize it was episode three. Wow, that's, congratulations on such a long running podcast. That's very impressive episode three. Gosh, I feel really honored that I was one of your first guests.

# Christine Goodner:

Well, yeah, it was great to have you. And I do think about, I had a podcast before this one so that it was slightly different, but I always think about what can we talk about and who knows a lot about the actual in the practice room practice that can help. I think people will really appreciate hearing practical ideas and certainly you have a lot of those to share. So excited to dig back in.

# Molly Gebrian:

Thank you. But you're right, what you said about 2021 is I was just starting to write my book. I wrote it in the summer of 2021. That's when I sat down and actually wrote the thing and yeah, it's finally out in the world. It's very exciting.

## Christine Goodner:

That is exciting. I know that feeling of holding up book and being like, oh, this is,

#### Molly Gebrian:

Yeah, it's like, wow, it's real.

#### Christine Goodner:

Yes, yes. That's great. Well, for those who have never interacted with you or learned from you before, could you just give a brief outline of your background and why you talk about what you do?

## Molly Gebrian:

Yeah, sure. Absolutely. So I am a professional violist. I've been a college viola professor for the last 10 years. But in addition to being a violist, I have a background in cognitive neuroscience and my area of expertise is applying the science of learning and memory to practicing and performing. I've just started a new position, actually, I guess I haven't technically started it yet. In two weeks I will be starting a new position at New England Conservatory. I will be teaching classes there on the science of practicing. I will be doing workshops. I will be working directly with students on applying the science of how we learn to their practicing. So I'm so excited about this sort of new chapter in my life that's just starting. So that's me in a nutshell.

#### Christine Goodner:

Yeah. Congratulations. That sounds so exciting. Thank you. Yeah, and I think one thing I think is very exciting is just the more science learns about the brain and how it works and how we learn, the more we can use that in our practicing instead of that throwing spaghetti at the wall and see what sticks or what worked for your teacher - And that's what you get taught.

# Molly Gebrian:

Exactly. Yeah, that's exactly right. And that throwing spaghetti at the wall and seeing what sticks, that was my approach as a kid growing up. I don't remember if I talked about it the last time I was on here, but at some point when I was maybe 10 or 11, somebody gave me a sheet that had maybe 10 different practice strategies on it, and I remember hanging it on the wall next to where I would practice and any problem I had, I would just do all 10 of them, not applying them strategically. But that was sort of my introduction to the idea of practice strategies rather than just playing things through. And you're absolutely right, many people either never get taught any strategies. They're just told by the teacher, oh, you need to practice more. Okay, well what does that mean? Or they're taught what their teacher was taught, and these things are passed down and many things are useful.

There's many things that science have found are very, very effective that teachers have kind of intuited themselves, but there are also lots of practice strategies that are really counterintuitive and advice that isn't as helpful is passed down and it kind of just gets in everybody's way and makes us frustrated.

### Christine Goodner:

Sure. Yeah. That was my experience as well. And I think probably many people listening who grew up practicing were kind of all doing that. So it's great to have some new resources that are sort of science-based - oh, now we understand how the brain works. We can use that in our practice.

## Molly Gebrian:

Right. Yeah, totally.

#### Christine Goodner:

So I thought as a starting point for today, we could just talk about why is it important to understand how our brain works when we're practicing, and what are your thoughts on that topic?

# Molly Gebrian:

Yeah, I have lots of thoughts. How much time do we have? (laughs) so I think that, I mean, practicing is teaching yourself the instrument.

I mean, most people have a teacher, but most of your time with the instrument is spent by yourself in the practice room, not with your teacher, or if you're a child spent with the parent and the parent is guiding the practice.

And the way that we do music learning is it's very self-directed most of the time because of this, you do all your practice and then once a week you have your lesson. And if you don't understand how the brain learns the most effectively, it's very hard to use that time in the practice room. Well, right. A lot of things like I was just saying about how the brain learns that are really counterintuitive that I don't know that most people would kind of stumble into on their own, and there's all sorts of messages that have been passed down.

We were just talking about that actually go against how we learned. And so there's all these sort of cultural messages in the culture of practicing that we're taught that actually we need to get rid of because they're not helpful. And so part of what I try to do in my work is to bring this science, what scientists who study, how the brain learns, how the brain works to bring that knowledge to musicians so we have a better understanding of that and to translate it into really practical terms so we can figure out, okay, what does this look like for me in the practice room so I can make the best use of my time? We all have limited time, we don't have endless amount of time to practice. And I for one, hate having my time wasted. That's one of my biggest pet peeves. Things that are inefficient just make me want to tear my hair out. And so finding ways to practice that are not wasting my time, that are not ineffective are really important to me personally. I want to share that with people. That's what lies at the base of what I do.

# Christine Goodner:

Yeah, so interesting. I think sometimes as adults too, if we're a teacher or helping young musicians practice too, maybe it's hard to let go of some of those preconceived notions about what practice should be. So I imagine that's a process, right?

### Molly Gebrian:

Yes, it is a process. The other thing I'll say actually is that there's also this big cultural message around, especially in music and sports around so-called talent, and this child is really talented, or you have a gift when it comes to music, blah, blah. And this is sort of a soapbox issue for me, so I'll try not to get too much on my high horse, but the research is very clear that talent is irrelevant, that it's hard, efficient, effective work that gets someone to a high level of skill. It's not any kind of innate gift or talent or whatever. And another big reason I do this work is because this sort of cultural myth around the importance of talent often makes kids, and sometimes their parents think that if something is hard for them, that if they start playing the piano or the violin and it doesn't come easily to them or they're struggling or they're frustrated, that means they're not cut out for it, or they're not talented and oh, maybe this isn't for them.

Maybe this isn't . . . I'm not cut out for this. Maybe I shouldn't be doing this. And that couldn't be further from the truth. It's just that they haven't been taught good practice methods yet, has nothing to do with their innate ability or whatever. And so I see a lot of students either get discouraged or not even willing to try because they have this idea in their mind, well, I must not be cut out for this because I'm struggling here. And then they're taught practice methods that are effective and they say, oh, wait, I can do this. And so I want people to feel empowered to do anything they're interested in. If you want to play any instrument and it's hard for you, that's fine. You just have to learn better practice methods and you'll be able to reach the level of playing that you want to.

#### Christine Goodner:

That's a really important message. I so agree. And I think sometimes we're picking up a complicated instrument, just things are going to feel very hard maybe and overwhelming about it when everything's new and we don't have the skills yet. Yeah, very normal, right?

#### Molly Gebrian:

Yeah, very normal. Well,

#### Christine Goodner:

I've started reading your book. We had talked before we hit record that it's just been published, so I'm working my way through, but I'm finding myself highlighting lots of things and putting in bookmarks and thinking, how do I take my students through some of these ideas or talk to other teachers them? So I really encourage people to pick up your new book, especially if this conversation sparked their interest so much in there - And a lot of studies that you reference about learning and performance, and I wondered if there's anything that we could go many different directions with this, but anything that you would particularly like to share as some ideas people could think about with practice and learning?

#### Molly Gebrian:

Sure. Yeah. I mean, I tried to make the book as comprehensive as possible without being, I mean, it is kind of a fire hose of information, but without being overwhelming. I tried to write it in a very sort of accessible, informal way in terms of how I use language that it doesn't feel like dry and jargony for sure.

### Christine Goodner:

Well, for sure it's very engaging, but also there's a lot there to digest. I just find myself thinking about it a lot.

## Molly Gebrian:

Right. Cool. That's great. If I had to pick out the two things that I think are the most revolutionary for most people when they hear it for the first time, and I think this is what we talked about the last time I was on the podcast, it would be the importance of taking breaks and interleaved practice. Those two topics seem to be the most surprising to people. They seem to go against this kind of received wisdom about practicing that we were talking about, and they really turn things on their head for a lot of people. So those would be the two topics that I think are usually, if people haven't encountered them before, the most sort of strange at first.

### Christine Goodner:

Will you talk more about the taking breaks. What do you mean by that?

# Molly Gebrian:

Yes, absolutely. So especially in classical music, there's this culture of you should be practicing all the time. And I mean, in our culture in general, not just classical music, practicing the idea of taking breaks, you don't do that. You're lazy if you take breaks. You should be working hard all the time. You should be productive all the time if you're taking breaks. No, that's bad. You're being lazy. You're not committed to this. But what the science actually finds is that not only are breaks good, they're absolutely necessary for learning, and that actually we make the most progress while we're taking a break, which is the most counterintuitive thing in the entire world. It flies in the face of everything we've ever been told. It kind of flies in the face of our own experience of the world. If you think about practicing or studying or in a training for a sport while you're actually doing this practicing or studying or whatever, that's when it feels like you're making the progress.

But that's not actually true. You're just giving input to your brain. And then when you take a break, your brain takes that input and it makes actual physical changes in the brain that are necessary for learning to happen and for you to get better. You can't actually get better at anything if nothing changes in the brain. And if we don't take breaks, the brain doesn't have a chance to do that. The analogy I often make is with road construction, if there's potholes all over the street and they need to fix the street, you can't have cars driving on it while they're trying to repave the road. They have to shut it down for a little bit, repave the road, and then you can drive on it, and it's a much better experience for you as a driver, that's exactly the same thing as the brain.

The brain needs you to take a break so it can do that reconstruction, and then when you come back, you're at a higher level of skill. But I mean, that's a really strange message for a lot of people to hear. You need to take breaks, you should practice less probably so you have more time for breaks, and if you take more breaks, you'll get better faster. I think that just explodes people's worldview in general. And so that would be the first thing that I would say that is a really important message that I want to try to get across in the book.

#### Christine Goodner:

And I think a feeling of you're supposed to cram things in your brain and just put a bunch of things in there, but yeah, that's not the only thing that needs to happen.

## Molly Gebrian:

Right, exactly. I mean, something that sometimes helps people understand this is the way that the brain treats information and then the reconstruction it has to do when you're taking a break is very akin to the way we build muscle. And so anybody that knows about strength training or building muscle in that way, when you go to the gym, you lift weights or whatever you're doing, and it causes little micro tears in your muscle. And then when you take a break, the body repairs those micro tears in the muscle, and that's when you actually build muscle. That's when you actually get stronger.

And so anybody that knows about weight training and gaining strength knows that rest is absolutely necessary. You have to have rest days. You can't work your legs intensively every single day. That is not going to work. That has become part of our cultural understanding around building muscle. It's the same thing with the brain. It's not a muscle up there, but the mechanism is the same. You give input to your brain while you're practicing, and then you have to take a break so your brain can do something with it and looked at that way. That kind of sometimes helps it click for people like, oh, okay. Yeah, I see how the break is when the actual progress takes place.

#### Christine Goodner:

So interesting. How have you seen students incorporate that into their practice lives? I can see that feeling interesting information, but then how might we think about that? I feel like most people feel like, oh, I should be making more time for practice. So it is counterintuitive and also what does it mean in practice?

## Molly Gebrian:

Exactly. Yeah. So it means a whole lot of different things. So within a practice session, however long your practice session is, if it's 10 minutes, if it's 30 minutes, if it's longer than 30 minutes, it's too long. So stop practicing after 30 minutes, but within your practice session, don't just play the whole time. Take little breaks within there. I would say I tend to practice in blocks of 30 minutes, and if I actually sat down and took all the time, I was actually playing my viola and then all the time I was taking a break and not playing my viola, I would say it was probably 10 to 15 minutes of it would actually be break time. And so I am constantly taking little short breaks within my practice session mostly to space out because that's what the brain needs in order to do that reconstruction.

So it's not like I'm not practicing, but I'm mental practicing or thinking intensively about it. I'm getting a drink of water or staring out the window and spying on my neighbors or something like that (laughs) to give my brain a chance to process in that downtime. So that's within a practice session.

Within a practice day, a lot of musicians, I think cram all their practicing into one big practice session. They'll do a big block of three hours or something very serious, high school students or college students, something like that. But it's going to be much, much better if you break up your practicing into much shorter practice blocks of time distributed throughout the day. So you have breaks in between your practice sessions rather than doing it all at once. In terms of longer term than just within one day, I think we think that we need to practice everything every day, that if you don't practice it every day, you're going to lose it.

And that's the opposite of what science shows. And so I think I talked about this last time I was on here early on in the pandemic, I did an experiment on myself having to do with breaks because I known about this research, but I get that it's really kind of scary to just take a bunch of time off. It really goes against how we're taught to practice.

But early on in 2020, everybody's concerts were getting canceled, and I was like, okay, this is the perfect opportunity to experiment with this because if it backfires, it really doesn't matter. I don't have any concerts right now. And so I did experiments on myself taking breaks of a day or a week or several weeks off from practicing particular passages or pieces just to see how it felt. And Io and behold, it was fantastic. And I learned my music much faster and it stuck with me much better.

I mean, that's what the research shows, but I really had a hard time believing it until I did it myself. Now it's 2024. I am never ever going back to how I used to practice. And so now what my practice looks like is as I get better at something, I take longer and longer breaks. So I'll take a day off or a couple days off or a week off from practicing something or a couple of weeks off, and those are strategic breaks because during that time I know that my brain is still processing the information and then when I come back to it after however many weeks I've taken off, I know it's going to feel a lot better. So that's kind of what it looks like, practical terms in a practice day and then over a larger amount of time.

#### Christine Goodner:

Yeah. So interesting. And to be clear, we're talking about taking weeks off of a certain thing that you're practicing, not just practicing altogether.

# Molly Gebrian:

Yeah, right. I mean, the other thing I started doing early on in the was I now take an entire day off from all practicing once a week. I don't practice on Sundays. I started that early on in the pandemic, just I don't know why. I just was like, well, whatever. And I did. It just, I dunno, that time was so weird in early 2020, the world was exploding and whatever. And that has been so great too, to have a single day where I don't play my viola at all. I don't think about viola, I don't think about it at all.

When I come back on Monday, I feel so refreshed. I can feel the difference in my brain. My brain just feels so much sort of sharper because I had that day off to do nothing when it comes to music. But when I'm talking about taking two weeks off from something, I mean taking two weeks off from a given passage that I'm working on, I may be working on other passages in that same piece during that two weeks, but I'm not, whatever passage I'm taking a break from, I'm not touching that.

I'm not mental practicing. I'm not thinking about it at all.

#### Christine Goodner:

Thank you. Thanks for breaking that down and talking about it. And I think because I work with a lot of really young students and talk to a lot of families supporting young musicians, sometimes it's a big frustration in the early years because their child is looking out the window, looking at the neighbors or the birds, or they're staring at the wall and it feels like very frustrating. Like we are wasting practice, but their brains probably intuitively know they need a break. I think the stressful thing might be reigning them back in or bringing them back to the task at hand afterwards. That does get easier, but there's something their brain's actually doing there.

Molly Gebrian:

Right, exactly.

#### Christine Goodner:

It's not just that they're bored or something. Yeah.

# Molly Gebrian:

And I mean, our brains need to space out. And that's another thing that's really weird for people to wrap their minds around, because most of us were kind of chastised as children, we'll pay attention, stop dream dreaming when we're just staring off and doing nothing. But the brain needs to do that. It's called the default mode network, that default, that word is in there.

Our brains need to space out. Our brains need to not be doing anything in particular because that's when the brain processes things, which again, it's so counterintuitive. If you're not thinking about something, how can your brain be processing things? But that's just how the brain works. And I think a lot of times, yeah, like you said, kids, I mean they don't feel like, oh, I need a break. I'm going to space out. They sort of just do it intuitively. They stop paying attention, and it's very frustrating for their parents who are like, ah, we need to be focusing on this. But yeah, likely if their brain needs a break and they're not going to pay attention for a moment,

# Christine Goodner:

I do think that helps. It can feel stressful to guide students through practice and feel like our time's limited, and here's this list from the teacher what we need to practice. And we're not saying, oh, it's fine to not get any work done, but also maybe their brain does need that break. And then I think it's just how

do we bring them back to the task at hand? That's really what attention's about anyhow, is everybody's sort of like you're saying, going in that default mode and then bringing themselves back over and over.

Molly Gebrian:

Right. Yeah, exactly.

## **Christine Goodner:**

So interesting. Well, also, you were talking about the interleaved practice, I think, and that's the second thing you wanted to talk about. I love to - I know we probably did talk about it on that podcast, but it's been a few years and I know I benefit from hearing things multiple times, so maybe you could explain that again.

# Molly Gebrian:

Yeah, definitely. Yeah, sure. So Interleaved practice is very close to this idea of taking breaks. So when I talk about interleaved practice, usually the first thing I introduce is two terms so that we have sort of a common vocabulary.

So one of the terms is the idea of massed practice, which is kind of what we were just talking about where you practice for a big block of time, massed practice, or sometimes called blocked practice, just a big block of time you're focusing on one thing and you're just working on that.

The opposite is interleaved practice, sometimes called random practice. Those words are also interchangeable, where instead of working on one thing for a big block of time, you're constantly switching between different things. So just to give an easy example, let's say you have five different things to work on rather than working on each thing for 30 minutes, maybe you work on each thing for five minutes at a time and you keep switching between them.

And then in the end, maybe you've done each thing for 30 minutes total by the time you've done all your practicing, but it's been all mixed up rather than one thing at a time. And since we are just talking about taking breaks, you can kind of see when you work on thing number one for five minutes and then thing number 2, 4, 5 minutes, and then thing number three for five minutes when you're working on things two through five, you're taking a break from thing one.

And so it kind of lines up with this idea that breaks are necessary. The other thing that happens when you do interleaved practice, on the face of it, it seems very chaotic. We were just talking about pay attention. What are you doing? Why are you flitting between these two things? Just pick one thing. But when you have to constantly switch between things, it's more taxing on the brain because you have to switch.

That's hard to do. That's a hard skill to switch. And then you have to remember, okay, what is this new thing that I'm working on? Oh yeah, I have to think about my rhythm in this one. And then when you go back to thing one, after you've worked on things two through five, you have to remember, what did I work on in that? What did I figure out when I was working on thing one? Oh yeah, that's right. And you remind yourself.

And so when you're switching in this way and you make your brain constantly switch between different things and different skills, it makes your brain more agile. It makes your brain more flexible and have the ability to switch between things, which is a skill that's really important for performance. When we play a performance, we have to just go from the beginning to the end, and there's new things that are constantly happening, what music is, and you have to be able to remember on the spot, oh yeah, this is this part.

This is how I play this part. This is how I do this the way I want to. And your brain has to be very adept at making those changes really, really quickly and moving from one section to the other. So when you do interleaf practice, you're really working on that skill that you need in performance rather than just doing the same thing over and over and over, which is a lot easier to do, right? Your brain doesn't have to make any switches, it just has to recreate the same thing again.

But again, this goes against how most people are taught to practice. We're taught focus on one thing, don't just go between all these different things, but that's not what the science says. The science says if you'll learn faster, you'll perform better. It's the name of my book. If you do interleaf practice, ultimately you'll have a better result.

#### Christine Goodner:

Yeah, it is very counterintuitive, very, but it does make a lot of sense. It's not just multitasking, which we're told not to do because splitting our attention, it's just training our brain in a certain way that doesn't make a lot of sense.

#### Molly Gebrian:

Exactly. Yeah. It's not splitting attention. You're really focusing on whatever you're practicing and just that thing. It's just switching what you're focusing on much more frequently than if you're doing blocked practice or mass practice.

#### Christine Goodner:

So if you're coaching, let's say a student through how to do this for the first time you have them, I assume it's actually sort of an organized process. Do you have them decide what they're going to do and in chunks, how does somebody get started on this idea?

## Molly Gebrian:

Yeah, there's lots of different ways to get started, and I kind of tailor it to the student and what I think is going to work best for them, usually, actually the way I first introduced this in lessons is when they're getting ready for a performance, all of us who are getting ready for performance have those parts of our piece that are more scary than others, that we're more worried about than others or tend not to go so well. And so the way that I usually first introduce this in lessons is when a student is getting ready for performance and they have a piece that's sort of polished and ready to go, but it has those little parts that are still kind of scary. I will put on an interval timer on my phone, which is a timer that will go off repeatedly. And I usually set it to go off every five-ish minutes, like five to seven minutes.

And I explained to the student that we're going to have our normal lesson, we're going to work on the other stuff that they're working on, but every time the timer goes off, they're going to perform for me. That spot of the piece that's like the part that they're worried about, maybe it's the beginning, who knows, doesn't matter what it is. And so we have our lesson and then the timer goes off on my phone every five minutes and then we stop what we're doing and they perform me that spot that we've chosen together, and then we go back to our lesson. And so it makes for a very chaotic lesson, especially as a teacher, you really have to remember you were in the middle of saying something and then this timer goes off and you have to remember what was going on. So you can go back to it, but by the end of the lesson, the student feels much more comfortable with that part that you've picked out, and so they can really see how effective this practice method is. So that's usually how I introduce it for the first time.

## Christine Goodner:

Oh, thanks for sharing that. That feels very user-friendly to get started.

# Molly Gebrian:

Yeah. Yeah, very. I will say from the teacher's perspective, the first time you do it very, I don't know, it feels very brain intensive because you're constantly getting interrupted. As a teacher, you have to remember what you were talking about once they finish their performance. So you can go back to it, it gets easier. But I remember the first time I did it, I was like, oh wow, okay, I'm really having really to focus and keep my train of thought here. But yeah, it gets easier. So that's how I first introduce it after that. There's so many different ways of doing interleaf practice, and I talk about a whole bunch of them in the book. Some students prefer to have things very structured for them. And so if that is a particular student, and especially I really love to practice with timers, I always have a timer going.

And I find that structure to be really helpful. And I find that a lot of students do. Also, something that can be really effective is to put on either to do what we did in the lesson, put on an interval timer, and every time it goes off, perform their thing and then go back to whatever they were practicing or have, let's say three to five different things that they need to work on. Write out an order before they start practicing. So as an example, let's say they have three things to practice. So they're going to do sections 1, 2, 3, then 2, 3, 1, then 3, 1, 2. So they've written out this order, they're going to come back to each thing a couple times, and then they put on an interval timer that will go off every how often, however often. I like to use a three minute timer for this because if you only have three minutes to work on something, you have to be really, really focused and you have to be really efficient and how you're using that three minutes, what students find when they use this practice method, first of all, I don't think I've ever done this with someone who was like, oh yeah, that sounds like a great idea.

Everyone is extremely skeptical. They're like, that is not going to work. But I'm like, just try it. Just try it. You have three sections and you come back to each one three times. It's 27 minutes, so it fits in. It doesn't take a lot of time. But what students find when they do this is every time they come back to each section, it feels better. The short little amount of time that they're practicing each section really helps them stay focused rather than practicing mindlessly or spacing out or just the way people tend to just get caught in this mindless loop when they're practicing, it cuts down on that the timer is going off every three minutes. It really helps them hone in on what exactly they need to do in this passage. So they're not just playing kind of aimlessly. They know, okay, I only have three minutes.

I'm going to attack this shift right here that's not working for me. And students come away feeling like, oh, that was an actually really effective practice session and that worked a lot better than I thought it was going to work. So that's a really good one for students, especially if they like to have a structure that is just set in place for them.

Some students can't stand timers and they find it feels like a straight jacket and they're just like, no. And I will say for myself, the three minute timer thing, I don't do that very often. I would say I do that maybe 20% of my practice time. If I was to look at all the time I spend practicing something, what I am more likely to do is within a given practice session, I am more likely to have a main thing I'm working on, whatever that may be the thing that feels like the top priority that I want to address today in my practicing.

But then I always have 2, 3, 4 other things that I need to work on that are not my main thing. And so I'll work on the main top priority thing for a little bit, and then when I reach some kind of stopping point with that, I will go work on one of my other things for a while and then I'll go back to my main thing and then I'll work on one of my other things for a while. So I would say the longest I ever work on, the main thing is, I dunno, it's hard to say, maybe 10 to 12 minutes at a stretch within a 30 minute practice block. And in there I'm taking breaks. And when I go practice the things that are not the main thing, sometimes

I only practice 'em for a minute or two. Sometimes it's a tiny little thing like this rhythm that is always bugging me and I just have to sort it through and it doesn't actually take me that long. And then I go back to my main thing.

Sometimes I'll spend five or six minutes on one of the other things. It really sort of depends. And so that's more often for me what it looks like within a practice session. So yeah, hopefully that gives some people some ideas for how to start with this Interleaved practice idea.

## Christine Goodner:

Yes, thank you. Thanks for a few different examples. I think that will help people get started with the idea and like you said, they read your book, we'll get more information and more ideas as well. So I would love you to talk a little bit about that. Where's the best place for people to connect with you, get your book?

## Molly Gebrian:

Yeah, absolutely. So the best place to find all of everything, all of my resources is on my website, which is just my name, molly gaon.com. So the two pages on there that have the most stuff, one is, I think it's called Music in the Brain. It's my website, I should know what it is. But Music in the Brain, the first thing on there is a link to buy my book, and it goes to Amazon. You can also just go straight to Amazon.

But the Oxford University Press, the publisher has made the first appendix of the book, which is a list of every single practice method I talk about in the entire book. I put it all in the appendix, and OUP made a PDF version of that. That's available for free on my website. So if people want to just have it by their music stand when they're practicing, that is on my website.

So that's why I direct people there, because there with the book, I also made a companion workbook that goes with the book that is, I think it's 55, 50 something. Anyways, worksheets that are basically one page each that guide people through many of the practice methods that are discussed in the book. And it's just kind of instructions, do this, do this, do this. But then also some questions to reflect on, to help people kind of about, well, how did this work for me? How could I incorporate this into my regular practicing as a way to help people actually implement the stuff in the book? So that's on my website too. But yeah, my website, best place to find everything.

# Christine Goodner:

No, that sounds great. That sounds great. What are you hoping this book does for people? What is your hope that comes from this?

# Molly Gebrian:

Two things. My hope is that people learn better practice strategies so they can stop being so frustrated in the practice room. They can stop wasting so much time on mindless practice that doesn't do anything and just have a better time in the practice room in general, that they feel like it's productive and fun.

Even lots of people that work with me, they're like, practicing is fun now! It's never been fun. And I love that because I mean, practicing it in through is problem solving, and I find it fun to solve problems, and it's very rewarding when you can play it and it sounds good. And so that's one thing I hope people get out of it.

The other thing is this idea of talent that we were talking about before, that people see that when they have good strategies for practicing, they can make the progress that they want to. They can learn to play an instrument, do anything they want to once they have good strategies. And it has nothing to do with

being cut out for something or being talented or anything like that, that it empowers people to pursue whatever they want to pursue.

#### Christine Goodner:

No, I love both of those very, very much needed. And I think there is a lot of frustration with practice, but when students get to that point where they start to feel like they do know how to solve some problems, it becomes fun, like you're saying for them. And that's the point we all want to get our students to. If we're teachers working with students or parents supporting our children, sometimes with really young students reading this book and translating it into working with them, there's going to be a parent or supportive adult that's going to help them translate this into what works for younger children. So I wondered if you had any thoughts, if there's a parent of a young child reading your book, what you would say to them?

## Molly Gebrian:

Yeah, sure. Absolutely. Yeah. I often get questions from parents saying, well, does this work for all ages? And just about everything I talk about in the book is general principles of how we learn anything regardless of age. And some of these are not even specific to humans. The idea of taking breaks, that's how all living things learn. It is not just humans learning music. And so they will work for young children.

My advice always to parents and teachers of young children is to embed these ideas into games. How can you make these ideas into a game? Because there's lots of research that shows that kids, actually, anybody learns more effectively when things are embedded into a game. It's going to be more fun for kids. If it's a game, they're going to be more engaged and they're going to get more out of it. And so thinking creatively about how can I make this into a game for my child?

I think teachers, we tend to be really creative in general, and teachers can kind of run wild with this and come up with all sorts of cool games to play with their students. And I think parents of little kids are often, they've had to be creative with figuring out ways to just help them even just put on their shoes to get out the door. And so thinking about, okay, what are the principles that are being talked about in my book and how can that translate into a game that my child will enjoy and that will engage them?

#### Christine Goodner:

Yeah, thanks. And I think using timers and some of the things we've talked about can work for young children too. Yeah. Yeah,

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Totally.

#### Christine Goodner:

Thanks for sharing a bit about that. Absolutely. Well, I can't encourage people enough to pick up your book. I think it's a wealth of information. I'm like madly taking notes as I'm going through it, and I'm happy for all of us that it's out in the world. So congratulations to you on that becoming a reality.

# Molly Gebrian:

Thank you so much. Thank you. Yeah, I'm so excited it finally exists after all these years. Yeah.

# Christine Goodner:

Well, definitely a benefit to all of us. Thanks for spending your time and sharing your ideas, and I hope this is a launching point for people to dig into your work and learn more about how to support themselves or young musicians in our life and practice. Thanks.

Molly Gebrian:

Great. Thanks so much for having me.

\*\*Transcript by Rev.com