

**Front Porch Broadcast Call:
Why Young Children Need Structured Motor Play**

Micki Ostrosky: Greetings, everyone. This is Micki Ostrosky at the University of Illinois at UrbanaChampaign. I'm a collaborator on the National Center on Quality Teaching and Learning and the facilitator for today's webinar. Welcome to our final webinar for NCQTL, our final Front Porch Series webinar. These monthly webinars that have been sponsored by NCQTL are your opportunity to hear from national experts on current research and findings in early childhood education. So on behalf of Gail Joseph, the other faculty and staff associated with NCQTL, and myself, I want to thank you for joining us. This grant, NCQTL, will end in September, so that's why I say this is our final one, since we take a break for the summer, but we're thrilled to have you here. And when we were talking briefly before starting the webinar, we figure over the last four years, these Front Porch Series webinars have probably been listened to by tens of thousands of individuals. So remember that you can go back to the website, to the NCQTL website, to the Front Porch Series, and the webinars are archived. So if you've missed some in the past, please go back and listen to them. And after you hear today's webinar, know that within the next few months, it will be archived and will also show up on the Front Porch Series website, on the NCQTL link for the Front Porch Series. So you'll be able to access the PowerPoints and if you — assuming you want to share the webinar with other individuals at your Head Start center or your preschool center, they can also listen to Paddy's talk and access the PowerPoints.

So let me tell you a little bit about our speaker today. Dr. Paddy Favazza is a senior research associate at the Center for Social Development and Education at the University of Massachusetts Boston. Her research in special education examines curriculum development for motor and social skills. She also studies teacher preparation, inclusion, and methods and assessment in early childhood special education. On my side, I met Paddy when we were both graduate students at Peabody College, so I'm really excited that she's agreed to join us today to share her expertise with us. During today's talk, when we think about, you know, the weather's getting nicer in many parts of the country, it's great that we have Paddy here to talk to us about motor skills and their relationship to other areas of development for preschoolers. Paddy will talk about some motor challenges that children with disabilities and children from at-risk environments might encounter, and she'll also talk about some current physical activity trends in early childhood settings. So the title of today's talk is "Why Young Children Need Structured Motor Play," and I'm just thrilled to introduce my colleague and turn the mic over to Paddy Favazza. All right, Paddy, you're on.

Paddy Favazza: Thank you. It's so great to be here. Okay. It's a pleasure being here. One of my favorite subjects to talk about, so I'm going to jump right in. Micki's right, the weather really lends itself to talking about motor skill development. If there's any area of development that is really universally salient in demonstrating every child's capacity to learn, it is in this area of motor development. In fact, some of the work I've done in the past 10 years has been in a variety of countries and in a lot of different cultures, and what we've seen across all of them is that family members, of course, can see those early motor development indicators when a child is just an infant: rotating their head, trunk control, rolling over. Those early benchmarks in motor behavior really do signal to those parents that their child is either typically developing and doing so in a timely fashion or maybe is not doing that motor development in a typical or timely way. And this is pretty important, and of course I know all of you in early childhood know, because the family members are the child's first in so many things: they're provider of care; facilitator of development; they're partner in play, including motor play;

they're observer of milestones; and we also include in here, they're first provider of inclusion. Even though many of us think their first inclusion experience is in a school, actually it's not. It's in their home with their families. And we saw — towards the end of these slides, you'll see this is an important point in motor play, particularly in cultures where a child with a disability actually might be excluded even in their family early on because of these early motor indicators not being what they should be and parents interpreting those in a certain way.

I mentioned to Micki I have a lot of slides to go through, and I'm going to try and cover as many as possible, but just to remind you, they will all be on the archive if I go through some a little quickly. When we think of motor development, it is essential to every other area of development, and I think these pictures and graphic describe this. When that child first begins moving, even orienting their head and trunk control and crawling, they start their exploration, which is really informing them, stimulating them in every area: language, cognition, their adaptive and social behavior. It's a pretty exciting thing to witness. It also feeds into, if you will, a whole continuum of motor skill development. This is Clark's Mountain of Motor Development. It's been around for a while. There are other graphics that display this, but I like this one because I think it's a very easy one to follow. And you can see a child progress from that reflexive period of motor movement such as that sucking behavior in early infancy on to adaptive, preadaptive behavior of learning to walk and grasp and hold things. It moves into the upper levels. The one we'll spend the most time talking about is what I call the sweet spot, the fundamental motor skill period. And you notice on all of these, the age spans, these are quite variable. Children progressing more rapidly or less rapidly, but occurring in these approximate time periods. We'll go through a little bit later what is included in the fundamental skills period, often referred to as FMS. And that, though, if you think of — I'll just pick two in here, running and catching, as two skills that are developed in that period.

When you learn those in isolation, what happens is, in moving into the next level, context-specific, you are putting two skills together. I'm going to now run and catch the ball at the same time and coordinate those two activities. You are also learning actually some higher-level cognitive processes, such as what are the rules for this game? And so those context-specific motor skills change quite a bit from fundamental motor skills in putting skills together as well as then applying some cognitive processes to abstract things such as rules of games. Skillful period is exactly what it sounds like. If I'm good at, say, running and ball manipulation and I focus on soccer as a particular skill. I will just point out just because the PowerPoint was so small, I took off the top part. There's one more period there called compensatory period, and actually people of my age might be in that category, or older than me. So I used to run track, but now I can't anymore, so instead I walk. And I might have orthotics in my tennis shoes to compensate for previous levels of motor ability. So that is a continuum of motor skill development, and we're going to focus, again, on that one right in the middle. Just to touch on, and I won't go into great detail, but these are kind of myths associated with motor skill development. That, first of all, it's merely a series of milestones that occur and are experienced in the same way for all children. What we will see, of course, is that some children have poor motor imitation, some children have poor executive functioning skills or physiological challenges that may interfere with them acquiring motor skills in the same way.

The second one, that they develop universally at the same time, this also, if you're familiar with

Rogoff's book on the cultural nature of human development, it'll be in the reference list with this PowerPoint, but is an excellent example of how many aspects of a culture — gender role, independence, autonomy, perceptions about abilities and disabilities — all impact children's development in motor skills. Critical periods are missed, meaning that the opportunity to develop motor skills are lost forever. There's seminal work, research out there in that area as well that dispels that myth. The last one is one probably I hear the most when I'm out in early childhood programs, is that, well, they're out there running on the playgrounds, so that physical activity automatically leads to motor skill development, or vice versa. And actually our research doesn't demonstrate that. So those are kind of myths to keep in mind as we go forward, that the development of these fundamental motor skills is really not automatic, not maturationally driven, but it requires actually a lot of support, multiple opportunities to acquire them and hone them for more efficient and effective skill use. So now I'm going to talk about kind of three broad categories of children: children with development disabilities, children with autism, and children who come from disadvantaged backgrounds or might be considered at-risk. Each of them have, if you will, some unique characteristics that place them at risk for motor skill development. And at the same time, they, across those populations, have similarities in their challenges.

These are examples on your screen of children with IDD, or intellectual developmental disabilities, of the types of motor skill challenges that they may have. And if I put that into two categories to see specific examples of those, they are listed here. Some, as I said, physiological, such as smaller digits, muscle tone, looseness of ligaments for, say, children that have developmental disabilities, as opposed to children with autism, who may have challenges with motor planning or even visual orientation, so they are able to look at the ball as it's coming towards them. Joint attention, when they are doing something in dyads or tandem with someone else. And other ones that are listed here as well. I'm not going to read these to you, but just to give you a couple of examples when I go through each — this population. There are many contributing factors, but one — I'm reading on some of the ones, introducing some of the ones that have a common thread across the research. And this one is found among the research for children with intellectual and developmental disabilities. You see a persistence of executive functioning challenges. That would have to do with planning, problem solving, paying attention, switching your focus from one thing to the next, kind of reflective of your mental flexibility, self-control are all examples of executive functioning skills.

So what we see in this particular citation is a positive correlation. In other words, children who tested lower in motor skill abilities actually had also lower or significant challenges in executive functioning skills as well. And so I'm going to — that's just one of many. I'll point out one for each category. Children with autism, as I just pointed out, they also have challenges in gross motor abilities, in fine motor abilities. Although some would not naturally link this population with muscle tone challenges, but that has also been demonstrated relatively recently. Posture and motor planning coordination as well. One of the things that I'm looking at, the thread that runs through much of the research over time, you can see it dates back to even more current research, is the absence of motor imitation. And actually this is not — should not be surprising, because when we look at the earliest learning strategies that we see that are also absent, so imitation as a bigger umbrella for social language and cognitive abilities found in this population, we also see under that umbrella of absence of motor imitation and the capacity to imitate when someone is demonstrating a motor movement. We certainly found this when doing testing of children in motor assessment and then implementing programs. So this is persistent across several studies in this population. Similar to children with intellectual and

developmental disabilities and children with autism, there are many children without disabilities who have notable deficits in this area, and in particular, children growing up in poverty.

We have certainly seen this research over years that even those who are born healthy in impoverished or at-risk environments show a gradual decline in several areas, and motor being one of them, their motor abilities, which persist over a long period of time. This should be nothing new to the audience listening, the negative impact of growing up in poverty, but I just put it up here to point to motor development is included in these studies like the other populations. And these studies really echo the findings of previous research, of the developmental impact associated with children from disadvantaged backgrounds. So we may say, well, okay, why is this important? Well, one of the probably most interesting things to me is the interrelatedness of motor development to all the other areas of development. And of course if they are impacted by growing up in an at-risk situation, then it makes a stronger case for motor skill intervention for this particular population. So I've touched on three populations rather quickly, I should say, on a very cursory level, but what else do they have in common? Across all three of those populations we just talked about, they also have challenges in social skills, which interfere with motor skill development, and they also have challenges in school or kindergarten-readiness skills. And, again, it interfaces with motor skill development.

So you can imagine a child trying to play with one another in a motor activity, and they're — have challenges with social exchanges or taking turns or sustaining their attention with another child or a group activity, that there is a reciprocity of challenges, that one exacerbates the other, that's happening in those circumstances. And so how are all these motor skill issues of these children addressed in early childhood settings? This is kind of the — I don't want to call it the doom and gloom, but this is startling research that's out there. Nearly half of preschoolers not sufficiently physically active. And of course, we're all familiar with that today. Between 20 and 40 percent of schools have eliminated recess. One of the ways that children can hone their motor skills is in all of that type of activity. And indeed, when we were out in two states in schools, many of the preschool teachers indicated they had no curriculum for promoting motor skill development per se, and that motor and play activities often were the first ones to be eliminated in their programs when they were stretched for time in their daily schedule. And when we asked, well, what kinds of motor interventions are out there, what do we see in those settings, they really fell into one of three categories: unstructured motor play, which is what we call recess; structured motor intervention, which is really, you would have to be invited into that group, because it usually requires that you have a motor need that is specified on an IEP or physical therapy, occupational therapy, or adaptive PE. Very often these are only a couple of times — one to two times — a week. Again, very abbreviated time periods.

And the last one, which is usually class-wide, in an unstructured motor music program, which I have to say, every classroom I went to, they had this on their schedule, that they had that, but when you actually observed these and looked deeply into what do those look like, they really were brief motor experiences for the whole class. They were not focused on teaching motor skills, per se. As one teacher or many teachers said, it was often — they viewed it as to get the wiggles out, to bend and stretch, and to add a little joy or excitement or in the physical activity interspersed throughout the day, often with music attached. And while each of these things that are on the screen right now really are great and they're all important, what is interesting about them is neither of the class-wide experiences, which would include recess and the motor music movement, addressed the need for ongoing, intentional,

very specific strategies to support fundamental motor skill development. You would only see, probably acquaint that with the ones that, the invited group, physical therapy — go to the — if you have adaptive PE or if you have PE in your program that is for some children. Most children have the recess and motor music without the intentional strategies to promote fundamental motor skills. And so why is that? What's the possible explanation? I suspect there's lots of explanations. You could name them: lack of time, lack of resources, some would say the lack of training in that area.

There's also the — probably these two at play that are on your screen. I think there's a general assumption that there's a natural attainment of motor skills, even though that assumption does not reflect the reality of many children. In other words, it'll just happen out there on the playground and in our few moments of music and motor movement. Another possible explanation of the diminished time and programming in this area, some have put forth that it may reflect an unintended outcome of increased focus on academic and pre-academic success, kind of at the expense of other things that were in a schedule or had space time in early childhood. But, or I should say, well, when we think about, though, No Child Left Behind and all the great laws that are in effect to really ensure that children have readiness, I think this point is worth remembering. It is defined in many different ways, kindergarten readiness, but it is a combination of interrelated skills. And you notice under the very first bullet point, motor development is in there. And these are interrelated, and I touched on these earlier. And so we see all of these being developed in the context of motor play for young children. So here's another way of looking at the same idea in that wonderful context of motor play. And I don't mean just motor play, that it's free play, but motor play that's intentional in promoting these other aspects of child development. Of course, motor play and motor development in and of itself is important, and so I'm not undermining that. I want to be clear about that, but it is also crucial to development in other areas. The good news is motor skills are amenable to change.

And the good news is early childhood classrooms can change kind of the way they look at those moments in time that are allotted for motor skill development. So I'm going to kind of shift here now and talk about what are ways that we can change. And I really want to put forth kind of what the research shows us and what programmatically we see in research-based programs, what the ideal could look like and does look like. It has these three components to it, and at its base, of course, is sound theoretical underpinnings that are guided by our professional guidelines and has demonstrated efficacy. And I'll just touch on these three quickly. When we think of the sound theoretical underpinnings, you should be able to look across a motor skill intervention and see that it has ties to our theories about motor development. So that one I showed of Clark's Mountain of Motor Development would be classic in that. You should look across a curriculum and see a recognized theory of change, that we see that attention — this is just one theory of change that's out there; there are others. But that attention is given to all the aspects of how that child is unique and how they are alike and others, with children in that age group, what is unique about the environment and the motor tasks that they're being asked to perform, and then that informs the strategies that we utilize. So if you think of this, even just this one, Dynamic Systems Theory, and think of universal design for learning, for example, that we're really looking at all aspects of the environment, the child, the task to make sure that that child has access to and full, you know, active involvement in that and we can maximize their potential for changing their level of development.

So that's under the — rooted in recognized theory of change. The last category is, it should be comprehensive in its scope. So I love "Sneaky Snake," getting up and doing that wiggle dance that goes to that song, but that doesn't — and if that's our motor movement for the day, it really doesn't address all of these: walking, balance, hopping, jumping, throwing, catching, kicking, running, and doing these with proficiency and with fluidness. And so when we think about motor interventions, these are things that we think about in terms of sound theoretical underpinnings. Likewise, we look at our professional guidelines, NAEYC and NASPE. National Association for Sports and Physical Education has incredible guidelines even for preschool level of what should be in these programs, structures and strategies, how much structure, how little structure, guidance about the adults and what they are to be doing, as well as how do you integrate and address all those wonderful overlaps of other developmental domains while you're doing motor movements. So it doesn't have to always be a stand-alone. So I can give you an example of teachers who worked on numeration and sequencing while working on jumping, targeted jumping on poly dots on the floor, and letter recognition and number and color recognition. And measuring not only those what we would consider pre-academic games and knowledge about those — numeracy, sequencing, colors, shapes, alphabet — but also their motor abilities as they are performing those tasks.

The last two, I think, go hand-in-hand. The programs, of course, should be culturally responsive and include families and really turning to families and helping — asking their help in informing how can we be more culturally responsive. So I'll give you an example. Some of the programs we did were in areas of the country that had snow. Some were in areas of the country that had hot weather. And so some of the motor movement and motor imitation activities we did with children who had difficulty with motor imitation reflected the sports that were in their geographical location. So I can tell you I don't play hockey; I live in a snowy area. But ice hockey's a big deal up here, and so kids were really wanting ice hockey movements to be put into their motor movement. In the other location, instead of that, they were putting in swim strokes. In another location, they were putting in yoga movements. So it was quite responsive to the culture and locale of where they're located. The last area represents evidence-based practices, and, of course, we want efficacy out of this, effectiveness of programming. There's a great article, Riethmuller, that is — will be in the reference list. An excellent read on, you know, is your program — does it have demonstrated evidence? You know, it might have wonderful packaging, but is there evidence behind it? Have they done research on it? Is it at the highest level of research with randomized experimental design? Even within the research that was done, would it be evaluated as having strong methodological quality? Were children the unit of analysis? Did they do direct measures of children's motor skill gains using a valid and reliable measure, such as the Peabody PDMS or the Test of Gross Motor Development? Did they have effectiveness not only after the intervention pre- to post-, but also follow-up data representing that? And did it have appropriate duration and intensity?

And these last two, which we often think are just the extras, actually have been shown to be pretty critical in this area: family component to motor skill development and the training of those who lead it, which is often teachers who, in our early childhood development, I know I went through that path and learned how to lead motor movement in my class, but I don't think I really learned much about even the content we're talking about today about how do children develop motor skills, per se, and what should we be doing in a program for that? So the training component becomes a critical piece of this as well. So at this point in our PowerPoint, I'm just going to shift and talk very quickly about one program that I've been affiliated with, and predominantly with helping write some of the curriculum, but also evaluating it before I stepped in. Young Athletes is a Special Olympics program. It was originally

designed for children 2 1/2 to 7 years of age, but mostly it is used for children 3 to 5 years of age, and it covers all the fundamental motor skills that are listed there. It came about, actually, because children of parents — parents of children with disabilities, particularly intellectual disabilities, found they had no structured program or they didn't know what to do to promote motor development, and they wanted their children to be active hopefully one day in Special Olympics or in their school setting and other sports activities. So this was to address that problem. That was a little over 10 years ago, and I was asked to do the first evaluation of it. It happened in about, I'm going to say we were in maybe 12, 15 countries, and learned quite a bit about it.

But one of the things we learned was that it was mostly happening in schools who needed lessons, because it was happening in schools and teachers needed training on how do you teach motor skills in a class setting. So that became our next evaluation or study with the Young Athletes program, following all the guidelines out there of establishing clinical trials, randomized assignment to treatment, and it took place in two states, 48 classrooms, and lots of kids, you can see. Most of these classrooms were inclusive, and the populations that we collected data on were children with developmental disabilities and children who were on the autism spectrum. I should say before we started doing this, because there was such variability in the way that it was being implemented, that one of the first things we had to do was we had to write the curriculum so that everybody was doing the same structure, the same lessons for consistency across the intervention. So we came up with the most minimum, so this is not the — it could be much longer. In fact, that's been the recommendation, but we selected the most minimum intervention, 8-week intervention, 3 days a week, 30 minutes a day in preschool settings. And it had the famous family/home component. We also provided training. And so it kind of looked like this: 24 lessons, lesson summary cards where teachers could walk around, didn't have to have their lesson book. And some teachers blew those lesson summary cards up on the wall so they could just see what's next, what's next, and move through them quite quickly.

Each week we focused on one particular — one whole week could have been on jumping, for example. And then a communication went home once per week on activities that families could do at home with pictures that showed what the activity was. It was also available for them online — links — so they could see it happening and click on and see, "Oh, that's what tunnels looks like," and do that at home with their family. So what did we find for children and families? I love these data. You know, you never know when you start, but this was pretty wonderful. You can see they started approximately in the same place on both locomotion and object manipulation. These are from the Peabody Developmental Motor Scales. And our intervention group in green was not only at pre-test to post-test significantly different in their motor skill abilities than the control group, but also 5 months later and 10 months later, time 3 and time 4. Basically at the beginning, all children were below level. They made significant increase in the intervention group. And this was also replicated on the Peabody as well as the Vineland.

On average, children in the intervention group made about 6 months gains. On average, children in the control groups in 3 months made 3 months gains. And it's 3 months because even though it's an 8week program, if you think of the testing period, from pre-test to post-test, people often ask, well, wait a minute, isn't 8 weeks 2 months, but so this is from pre- to post-. The gains were also reported on social skills, school readiness, and language, and at follow-up, similar findings. Children who were in the intervention made gains on all subscales: stationary scales, which is predominantly balance; locomotion; and object manipulation. And from pre to follow-up in that intervention group, they were

statistically significant when compared to the control group as well as when compared to themselves from pre- to follow-up. I won't read through all of these, but I wanted to let you know — it's going to be on the website — that obviously, teachers noticed changes. And this is just to show you also that these — this feedback is about all children in their class, so remember these were mostly in inclusive classes. So not all children could jump with two feet simultaneously. And so this is just, I guess, illustrating that it's not automatic for all children, and these are types of gains that they saw in children in their class. It says — you see "kicking." Kicking is listed there, too. Kicking balls, not one another. But kicking balls for soccer and so on.

Purposeful play: we loved this category when we did our content analysis. And I could observe this when I was out in schools, that children, particularly children with autism, wandered on the perimeter of a playground and ran their hands along the fence and did not engage with other children and did not engage with play equipment that was out there. We saw notable changes in that. Even the last one, it's about a little boy who couldn't tolerate close proximity to another child, and now joining in and playing bridges and tunnels, which requires being quite close to other children. School readiness was also a category in our content analysis that came about, and social skills as well, of children taking on what we would consider typical social behaviors. We also had parent feedback that replicated this. I'm going to keep moving quickly to get to the next section. And evidence reported by parents of much more enthusiasm, motivation, and confidence when they went out into the community to playgrounds and just doing play with other people and with their family members. So it had a great impact on family time, enjoyable time that they spent together, and even changed their expectations about their child.

So it goes back to that kind of first opening PowerPoint I had about, it's a notable — sends a signal to parents that a child actually can do something quite different. It's so visible to see the difference in children in this particular area. I'm going to go quickly through this. Won't do it justice, but there's a citation for this study. We just got accepted for publication, and the results have been great. We found out that this program was effective in the U.S. in a very well resourced or mostly well resourced country, but would it be adaptable in other places where there is significantly less resources in those countries? And so our first thing, of course, when you go into field work in Venezuela, Kenya, Tanzania, Romania, your work that you do is informed by what's out there and the challenges.

So the first thing we had to do was then go back to the drawing board and develop a guide to go with the program so that we could provide support for adapting to resource-poor situations. The second thing is — and both of these things we're still working on and should be finished actually sometime this summer — but they had to develop a tool to go with the program because lack of resources. They do not have access to tools such as the Peabody or Test of Gross Motor Development. So for this study, we used the Test of Gross Motor Development, but we also were at the same time developing a tool to go with the YA curriculum. Again, wonderful data. Let's all admire the data. Locomotion, object control — I love this — in Kenya. Looks beautiful. These were all children in — with disabilities that obviously showed gains. Here's similar, a smaller group we had in Romania, same two categories on Test of Gross Motor Development, and so lovely data from both of those. Like the studies here in the U.S., we had child impact, but these next slides I just want to emphasize, because we have a lot to learn from, I think, developing countries about what we can be doing in adapting our programs and what we can learn about the profound effect of something like motor movement and motor skills. They — obviously the first category for children, the impact was on development, so I think these are obvious:

diminished development in those areas, improved development in those areas. But if you look at the next broad category, acute isolation and invisibility within those cultures and settings. And these are some of the circumstances that we found children in; not even included within their families.

They taught me a lot about inclusion begins in the family, because there are places where children with disabilities are not even included in their family. To being included in their family and their family routines, to walking outside and playing. And parents who signed on for this took them out of those separate rooms and no access to friends or community outings and walked down the street actually being shunned by neighbors and tribal groups and et cetera. And so went from being isolated to being visible and having supports from the program to assist them in becoming a part of their family. This is a family that came to watch and help their child play. These are what family members said to us. They had lack of knowledge about disabilities and a really negative perception that was passed on to them from cultural messages. And they shifted to a much more greater understanding about their child and a positive perception, really rejecting the cultural messages after seeing their child in motor movement with other children. Lots of stress, they talked to us about at the beginning, associated with societal and familial response to having a child with a disability, and then talking about how that stress was buffered by being a part of a motor program with other families of children with disabilities and with children without disabilities and also the connection they got with other family members and other programs; pretty powerful stuff.

I love this picture. These are our volunteers from Kenyatta University, and they were getting ready, stretching and getting ready to be a part of a motor program in a school that for the first time was providing programs for kids with disabilities. And so they also talked about general lack of acceptance and separation and then movement towards acceptance and inclusion. They also talked about they had limited or no experience or opportunities with persons with disabilities, and this afforded them new opportunities. What we saw overall is these are pretty profound shifts in parents of how their perceptions changed. And, again, I won't read through these, but pretty profound in the context in which they live. Just a couple more slides here, and then I'm going to stop. I think when we look at the importance of motor skill development from a — in a global context, you see a much broader and deeper impact, but we saw some reflections of these also in some of the — coming from some of the, especially the parents of children even in our own country transforming their views about their children, of fostering parent-child relationships, of leading to greater inclusion in their family, community, and, in some instances — many, actually — their access to early education in other countries. And of course the visibility of children.

And, as Micki mentioned, my other area of focus is creating a sense of belonging for all children. This was certainly a vehicle to do that. I think this is my last PowerPoint, and it basically, the bottom line is I would encourage everyone to raise the bar for motor skill programming in schools, in early childhood programs, aligning them with best practices, data-based programs, all the things we touched on here: training, preparation, individualizing, and so on. The last one I want to touch on, it's one thing to plant this seed and start it, but you really have to plan for sustainability. We've found in going back to programs that that's been a challenge for the places we've done the research, and that's a very important one, because it shouldn't be just the one plant the seed, but how are you going to sustain it, the program itself in a school and the skills of children. So I'm going to stop there now, Micki, if I can figure out how to do that.

Micki: You can just leave that slide on, Paddy. That's fine. So thank you, Paddy. This was great. And we loved — or I loved how you highlighted the research on motor development and then also linked what ideal practice could look like. So, Paddy, so some of the comments from listeners were that they loved the link with families, you know, what to do at home, what to do in communities, and also your emphasis of how motor development and curriculum that focuses on motor development impacts other areas that are broader than motor. That sometimes we think about these things as kind of silos, and they're really related. That's great, Paddy, so thank you so much for joining us today. All of our listeners, thank you for joining the Front Porch Series webinars over the past several years. I want to give a special shout-out to Cole Lundell and Susanne Walker and all the others who've provided technical support through the Front Porch Series webinars. They have given us so much behind-the-scenes support, and while it might look like we run through this very smoothly and we know what we're doing, for many of us, like Paddy and I, we're not used to using technology like this, so Cole and Susanne and others have just been fantastic in helping us keep calm and do these and hopefully provide you with lots of great information.

So from the faculty and staff at NCQTL, especially Gail Joseph, who's been our leader on this series, who really thought about it, envisioned it, it's been our pleasure to bring these webinars to you. We sincerely hope you'll share the archive links with others so that they, too, can go listen to early childhood national experts as they share their research findings and the application to practice. So it's really important that we understand the research behind things but then that we have practical ideas like Paddy shared with us today that we can then enhance motor development and other areas as we work with young children with and without disabilities. So have a great summer. Get out there, do some motor activities, and we have more to come on what will happen with NCQTL and kind of where the future will go for other grants that relate to Head Start. So thank you, Paddy. Appreciate it. We'll sign off now.

Paddy: Thank you. Bye.

Micki: Bye.