

Physical and Motor Development for Preschoolers

Judi Stevenson-Garcia: Hi, everyone. Welcome to Teacher Time. This is our fourth and final episode of this year's Teacher Time preschool series. I'm Judi Stevenson-Garcia, and I'm here today with Treshawn Anderson. Hi, Treshawn.

Treshawn Anderson: Hey, Judi. Happy last episode.

Judi: And happy Friday.

Treshawn: Happy Friday.

Judi: Of the season at least.

Treshawn: Well, hey guys, we're from the National Center on Early Childhood Development, Teaching and Learning, and we're excited to be here today to talk about perceptual motor and physical development for preschoolers and how it really impacts learning in other domains. And since it's spring ... So, imagine, if it's spring, imagine that you are preparing your science activity on flowers, and you found the perfect book to read to the children, and you even brought a vase of flowers for the children to touch and smell, only to find a bunch of wiggly preschoolers moving around on the carpet.

So, what do you do? If you've ever been in that situation, like I have, you're probably in the right place today, because we know that preschoolers are always on the move, and while they're moving, they're also learning, and the wiggling preschoolers are learning that while the flowers may be interesting, they're learning that their bodies probably need to move. And teachers also learn to adjust their plans and perhaps read the flower story later in the day, or maybe just explore the vases of flowers outside with magnifying glasses. So, we know that many of you are working hard to learn about perceptual and physical and motor development and how you can support children's learning in your classroom. So, your interest in this area in supporting children's development really inspired us to focus this episode on the perceptual motor and physical domain in the Head Start Early Learning Outcomes Framework, or ELOF, as we like to call it. More specifically, we're gonna talk about how motor and physical development, and how this specific area of development, really influences learning in other areas. But before we dive into that we're gonna give you some information about this seminar because we'll be using some of the Adobe Connect features to help us interact with one another.

Judi: Right, and if you've been with us during the season, this will be all familiar to you. I see lots of you have found the chat box and are already saying hello. And thank you for sharing your really great ideas about getting kids up and moving. Brianna, I love your explanation of the smart activities. That's really cool, so thank you for sharing that. If you have any questions related to what we're saying, please feel free to use the chat box. Jan Greenberg is our chat box facilitator. She's already in there chatting with you. She's in blue. So, if you have questions that

come up, please feel free to ask. Jan will help facilitate those questions, and she'll also be putting some links in the chat box when we refer to things throughout this session. So, the supporting documents you can find underneath the chat box. As usual, we have our viewer's guide, which is a really helpful way for you to jot down ideas that you hear, thoughts that you may have, or questions that you may have moving forward. So, you can download that. You can type right into it on your computer, or you can print it out to use it as you go along and follow along with our content. And then also, the slides from today are in there as well. As usual, we're going to have a few videos in this session, so if you're listening on the phone, unfortunately you will not be able to hear the audio over the phone. The audio will come through the speakers, so make sure that your speakers are up so that you can hear the videos when we play them. And for whatever reason you're not able to hear the videos or if they stop for you, you will be able to watch them on MyPeers next week when we post the webinar. And if for any reason you get disconnected from the webinar just use the link that you used originally to login and it'll get you right back in the room. Finally, at the end of this webinar, as always, we provide the opportunity for you to fill out a feedback form, an evaluation form, and then that allows you to get your certificate of participation. We really appreciate your feedback. It's been really valuable this year to hear what was valuable for you, what you're interested in learning next. And so, we do look at those evaluations and we use them to help improve our Teacher Time series as we move forward. If you are viewing the webinar with colleagues on one computer and only one person is registered for the webinar, you can forward the evaluation link to your colleagues who also views the webinar, and then once they complete the evaluation, they can receive a certificate of completion.

So, just a reminder, the context for Teacher Time is that we really are referring to teachers, but also any adults who work in group care settings: teachers and family childcare providers. We recognize that there's a wide variety in the type of learning environments for preschoolers, so, we know some of you work maybe work with all three-year-olds or you may be a family childcare provider who supports a wide range of children of different ages. So, we do hope that you find this information and this strategy that we're giving you and the resources to be helpful for you in the work that you do each day. So, keep on chatting away in the chat box. We love to see them. We'll have opportunities for you to respond to some of what we're doing. And we just really hope that you enjoy this next hour. So, finally, you can find all of our Teacher Time episodes, including today's, for a short period of time up on MyPeers, and then eventually, they're gonna be permanently on the ECLKC and Jan's already putting the links to those in the chat box as well. If you're not familiar with MyPeers, it's really an online learning community that you can join groups of interest, just like Teacher Time, and use that time to brainstorm or exchange ideas and share resources with other colleagues from across the country. It's easy to join. It's free. We'll remind you again about at the end of this episode, and like I said, Jan is in the chat box putting those links. So, make sure you save them or go to them and go ahead and sign up as you can. Also, remember you can go to the ECLKC to find additional resources on today's topic, as well as other topics related to working with preschoolers. So, we hope you guys use those resources. They're also on your viewer's guide as well.

Judi: Yeah, that's right. That's another good reason to download the viewer's guide because they're all of the resources that we mention, and actually some resources that we don't mention are gonna be on that viewer's guide for you. So, that's great. Thanks, Treshawn. So, let's jump into our topic for today. We're here to talk about how we can support physical and motor development and how this development impacts other areas of learning and development. So, gross motor and fine motor skills are two pieces of the perceptual motor and physical development domain of the ELOF. So, let's start by defining gross and fine, fine motor development, just so that we set the context. So, gross motor development is all about children using their large muscles, like their arms and their legs and also the development of muscles in their core. So, if you go to the gym, you know what it means to work your core. Right, those muscles in the middle of your body that really support standing and fitting and running and even concentrating. Everything that you do on a daily basis is really supported by those large muscles. And children use these muscles to help them interact with and within their learning environment and with the people in their environment. And as children develop their gross motor skills, they are better able to move their bodies and really coordinated movement, like using their legs and their core to swing on a swing. They use their whole body to balance as they walk across something that requires balance, or even using alternating feet to climb a ladder or to ride a tricycle.

Treshawn: Physical development also includes the use of small motor skills, like your hands and your fingers, also known as fine motor development. And so, when we use our fine motor development, it really allows us to use our hands and fingers in precise and intentional movements like pushing the buttons to dial someone on your phone, for example. For children, though, children develop their fine motor skills, as they develop these skills, they're better able to draw simple shapes and letters, they start to cut paper with scissors. They demonstrate more coordinated fine motor movements, like pouring themselves a cup of milk at snack time, or even buttoning those jackets, although I'm glad it's very warm up here so we don't have to do that as much. The ELOF describes important goals for growth and fine motor development and that is for children to engage in more complex, large and small mix of movements during the preschool years and to build their stamina and strength and coordination, allowing for participation in a wide range of physical activities.

Judi: Right, and we know from research that physical development is associated with other areas of learning and that, often times, progress in one learning domain is really the line on progress in another learning domain. So, activities that get children moving, they also build motor skills that are useful to reading, writing, math, science skills. And so, we're gonna spend some time today thinking about how these fine and gross motor skills help children learn each day. To help us think a little bit more about children's physical and motor development, we have a special guest with us here today. Dr. Sherri Alderman is here with us. She's a developmental pediatrician from a National Center on Early Childhood Health and Wellness. And there she is. Hi Sherri.

Treshawn: Hi Sherri.

Judi: Make sure you're not muted. Are you not muted? Oh no, I can't hear you.

Dr. Sherri Alderman: Can you hear me now?

Judi: Oh yes, that's perfect. Hi Sherri. We're so glad that you're here with us today. So, let's get started thinking about what are the most important things you would say that we need to know about motor and physical development for preschoolers?

Sherri: Well, hello everyone. I think the first one, and really the main one is that preschoolers are driven to interact with other children. This is a characteristic of this developmental stage. And a second one is, an ability to appreciate the perspective of others as different from their own, and to be empathic, are critically important skills for preschoolers to be successful and pleased with their interactions with their peers. These skills will carry forward throughout their lives and contribute to their academic success and social well-being. So, motor skills are foundational in the development of these skills. And a third one that's important, is that motor and physical developments are the skill set that provides a preschooler the capacity to keep up with their peers, engage and play with other children, and learn the social negotiations that productive and successful human interaction entails all the time. And a fourth is that, just as preschooler's cognitive capacity and experiencing greater abilities to sequence that sort of goal, so is their motor development because motor skills are becoming more and more complex at this age. They're running, and turning, and twisting, and rolling, hopping, and jumping, all bundled together in many combinations and in fun ways that support a preschooler's social and academic success.

Treshawn: Yeah, those are great points. So, how do you think physical and motor development impact or influence other areas of development then?

Sherri: Hmm, that's a great question. And, as I touched on, a preschooler's social interaction calls upon a child's ability to move in their physical space. In an ability to keep up with other children and instill a sense of self-esteem and confidence to interact with the world and learn. This leads to furthering their cognitive and social emotional development and a growing ability to control their body in space in a confident manner also yields greater social and emotional regulation, leading to greater ability to focus and learn. What I mean here is that a greater bodily sense of centeredness is a solid foundation for being able to concentrate and use frontal, pre-frontal cortex executive function skills such as cognitively making new and creative connections of your being and remembering new ideas and operating on the knowledge that that preschooler has already learned. For instance, a child that has low muscle tone or challenges with balance will be trying hard to conjure up more energy and effort and strength, just to center his or her body in space even before initiating movement. Without special attention and inside into the child's individual differences this easily can go unnoticed by us adults. This extra strain on a child can be exhausting and frustrating, when their mind and body are at the same time driven to keep up with their peers. And without special support this can adversely affect them, emotionally, and impact their sense of self-esteem and confidence. But with support and gentle encouragement and, most importantly, recognition for their efforts, more so than their mastery, a preschooler can gain a significant sense of accomplishment for

trying and build a spirit and value of the need to success as more important than the immediate outcome. A teacher modeling this interaction with struggling children, is noticed by the other children too. And in turn, those children will practice that amongst themselves, which further promotes peer to peer interaction. So, it really becomes the values and a part of a classroom culture.

Treshawn: I think that's really interesting.

Judi: Oh, go ahead.

Treshawn: I was gonna say it's amazing to think that us as teachers really have that much of an impact on children's physical development. Like, if you think about your facial expression when a child is gonna try something new, like jump off of the jungle gym or something like that and if we're like [Cringe noise] they may not be so apt to try it, but if we're encouraging them, we know that they can do it. We offer assistance, that really builds their self-esteem. Sometimes you don't think that a physical development relates to self-esteem, but you can see how it does in your explanation. And that's great.

Judi: Yeah, and some of our participants commented earlier with the earlier pictures, like with the obstacle course, that one of the things an obstacle course could support is peers encouraging each other and, kind of this way of working ... teamwork, right? And so, I think it's really interesting to think about how supporting physical development in your learning environment can really benefit children's social emotional growth and the growth of your community. I mean I just think that I never thought about physical development having that kind of an impact on the social, emotional, and executive functioning or self-control that children have in other settings. So, that's really exciting to think about. So, as Dr. Alderman stated, physical and motor development influences these other areas of development, and as teachers, we can help to facilitate learning in multiple ways by being intentional in our practices and the design of our learning activities. So, let's take a minute, we're gonna watch a video of a teacher who's supporting fine motor skills as well as children's literacy development. So, as you watch, tell us in the chat box what do you see that this teacher is doing that's supporting fine motor skills but also other skills. And tell us if you see or notice any strategies that she's using as she works with this child. Let's go ahead and watch.

[Video begins]

Girl: Going to drama.

Teacher: Drama, what letters do you hear in drama? Dur-ra-ma.

Girl: Du?

Teacher: And what is du? Yup.

Girl: D.

Teacher: Do you know how to write a D? Girl: D?

Teacher: Do you know what that might look like?

Child: I think. What comes after the M?

Teacher: D. Pebble, tall stick.

Girl: I remember, it's like this.

Teacher: Hm hmm. But you're gonna go this way. It's gonna be a pebble first. Can you do a pebble first? Do a pebble. And then a tall stick.

[Video ends]

Sherri: It doesn't have to be very long either. Dr. Perry suggests small increments, say 15 minutes. And the process of getting outside and back indoors can be structured in such a way that that too, is part of the getting moving. Structuring the learning environment in such a way that to complete a certain activity calls for a preschooler to get up and move is also a way of promoting motor development. We're staying focused and sequencing steps all important skill building and developmentally appropriate skill for a preschooler. For instance, for an art activity, the child might be asked to pick a cup, go to the sink, fill it with water, and bring it back to his table in preparation for an art project. This may be something you already do in your classroom, but think about all the skills that the child is exercising to do this simple activity. Remembering the instructions; we call this working memory. Navigating the classroom environment amongst all the other children. This is focus and avoidance of distraction. A turn taking at the sink, that's perspective taking. The other child wants to fill her cup too. And balance and coordination to carry the water-filled cup back to the room, across the room and back to the table, and a sense of accomplishment, then seated and ready for the next step of the activity. Of course, from the adult's perspective, this is certainly not the most efficient way of doing the art activity. There may be spills that need to be cleaned up or there may be challenges at the sink, or may I say, opportunities that call for adult facilitation. Just to point out a few. But the game from touch and coach go well beyond the time we have today to live and these are games towards skills that will come into place throughout the child's life.

Treshawn: That's almost like appreciating the process and not the project at the end. Just taking a moment to let the children explore their bodies and really take ownership of what they are doing at the time. That's pretty cool. [Laughter]

Judi: I love that you're using a very simple example of something we might ask a child to do every day, but showing how, when you really break it down into its components, all of the things that a child is learning, just from going to the sink to get some water and bringing it back, which we might take for granted. But there are those small little, or big skills that are being learned when we give them this opportunity. And I also think, I like what you say about how it might be easier for you to just get up and get the water and bring it back, right? But the idea is

that we want to be supporting these skills by allowing children to succeed at these tasks on their own. So, I think that's a really helpful way to think of how we can build these skills, even in, kind of like the everyday routine things that we do. And start to notice what children are learning and able to do through these routine activities. So, with that said, maybe you can help us think a little bit about what we need to notice or pay attention to for children to, may have susceptibilities or identify disabilities.

Sherri: Hmm. That's a real important consideration. And it's fun to think about this together. There are adaptations and considerations that we want to implement in the classroom to support full engagement of every child, including children with suspected delays or identified disabilities. The goal is that every child will have full opportunities to engage in the classroom, in a developmentally appropriate way. And this is where our colleagues, occupational, physical, developmental, behavioral therapists can make very important contributions to assuring that every child succeeds. It is nice to remember too that often classroom adaptations prompted by a child with a special need, will benefit other children in the classroom as well. And some children will already have a diagnosis of a motor delay. Other children will not. And still, other children may present with very subtle signs of internal challenges that impede their ability to fully engage in the world in a developmentally appropriate way. So, what does that look like in the classroom? Again, I go back to the importance of peer-to-peer interaction during this exciting stage of development. How is the child succeeding in interacting with the other children? What setting does the child do best in? When does the child get frustrated? Or, when does the child refuse to cooperate? These are all indications of possible motor challenges, however obvious or subtle they may be. The child is doing his best to communicate their needs and it's our professional duty to decode the child's message and explore with the child ways of supporting their optimal development and engagement. Thanks for thinking through that together with me.

Judi: No, thank you for helping us think about that. That is truly powerful, I think, in terms of, I love what you said about learning from the child, that the child may sponsor some ideas about adaptations, and I love what you said about having this, or using this as a great opportunity to support peer development and peer relationships, right, where you have opportunities for children with different skills and different abilities to interact with each other. So, thank you for that. It's been great to have you here, Dr. Alderman. And thank you for hanging with us through a little bit of bumps, bumpy road. [Laughter] But we'll invite you back at the end of the episode if anyone wants to chat or has some specific questions for you. Can you hang around for a little bit afterwards?

Sherri: Absolutely, thank you.

Judi: OK, Great. We'll see you in a little bit. So, earlier, if you remember, Dr. Alderman talked about making sure that we're structuring our environment so that if we want a child to complete a certain activity that they get up and move and experts are telling us that this is something that we want to make sure is happening kind of frequently, a way to reset children, their bodies and their minds and a way to allow them just to kind of move the blood in their

body and get the wiggles out, right. What is it? Shake the sillies out, like we like to do. So, we're gonna watch a video of a teacher who is structuring a classroom activity in this way. It's both supporting cognitive development but also supporting children's physical development. So, as you watch, think about the strategies that you heard Dr. Alderman mention and tell us in the chat box what you think.

[Video begins]

Children: One, two, three, four, five, six.

Teacher: How many?

Children: Six.

Teacher: Oh, a hard one, like this.

Child: Five and four.

Teacher: OK, let's count. One, two, three, four, five, six, seven, eight, nine. How many?

Children: Nine.

Teacher: And I'll show you the number. What number is this?

Children: Nine.

Teacher: Nine. Let's go.

Children: One, two, three, four, five, six, seven, eight, nine.

[Video ends]

Judi: First, they were recognizing the number, counting out loud, and then moving their bodies to the count. She also is reinforcing the number by showing them the number symbol. So, connecting a number with a number symbol is another cognitive skill that preschool children are working on. It's just a great way ... I mean, you could do that activity sitting down. What number is this, and then show them the number but she's recognizing that it's important for children to move their bodies. And so, they're moving their bodies and they're also ... She's also using that opportunity to develop some cognitive skills. So, this leads us right into the domain that we love to talk about on every episode, which is approaches to learning. Right? Because taking a unique or developmentally approach to how children access knowledge and learning is really important. And this is not about what children learn, like the No. 9. But how. So, this teacher has set up an opportunity for children to learn about numbers in a way that engages them, involves their physical body, and is exciting for them. So, this domain includes, initiatives, curiosity, creativity, and lots of what you mentioned earlier, when we were looking at the pictures, included those things. So, these rows and fine motor activities that we're offering

allow them also to express curiosity and creativity. And so, some of the important and approaches to learning are to persist, and some of you mentioned that. Keep trying, right? During play. Even if a task is frustrating, demonstrating flexibility and thinking and behavior and controlling impulses. And we know, especially with gross motor physical development learning to control impulses. Having opportunities to move your body in a way that's appropriate is really important. And so, for children to develop fine and gross motor skills, they definitely need persistence and flexibility and to control their impulses. So, let's think about how supporting skills and approaches to learning can benefit children as they develop fine and gross motor skills. So, for example, learning how to pedal a tricycle or climb a topster can be difficult. Children also may find, fine motor tasks frustrating, which is writing, stacking small blocks and getting them to stay up, stringing beads, but if you provide a supportive and encouraging learning environment, and like Dr. Alderman said, one where we are supportive of each other, we have peer relationships and we can help each other, we have an environment that's supportive of social emotional skills, this is going to help children to continue to persist or keep trying and to keep working at it, even when it gets frustrating. The fine and gross motor tasks that we ask children to engage in or that children regularly engage in, they require flexibility. And we don't just mean flexible bodies. Although, children, at this age, really are amazing with how flexible their bodies are. They need to be flexible in their thinking and behavior, which means adapting to new situations. They move their bodies differently when they're inside versus when they're outside, or at least they should be. Working with smaller materials requires more focus and maybe some more patience than when they're working with materials that are easy to manipulate. And then finally, approaches to learning includes the expectation that children will just keep getting better at controlling their thoughts or their actions. What we call self-regulation. And I say getting better, not perfecting. Getting better, they're working on it. They're learning about their bodies, and they need to focus on controlling their bodies in response to the challenges at hand. If I get frustrated stringing a bead, I'm not gonna throw that bead across the room. Or at least we hope eventually, we will find positive ways to deal with that, without frustration. And remember, as teachers, it's our role to provide safe and supportive environments where children are encouraged to take risks, keep trying and to be flexible in their thinking and to express positive and negative emotions in appropriate ways. So, we're gonna try this again. We're gonna watch some videos, and hopefully, you'll be able to see them. We're gonna watch two videos of teachers providing a safe learning environment where they're encouraging initiative, creativity, and persistence, and they're also supporting fine motor development by providing interesting materials to use. So, let's watch and if you can see and hear the video, tell us what you think in the chat box.

[Video begins]

Boy: I want the little one.

Teacher: You want the little rocks? Wow Brandon, you shaped a B using rocks. There's some small ones here. Do you want to use any of the sticks? We can break them if you need different sizes. Do you want to use sticks, Michelle? To make your name, Michelle? I'm trying to pull them out. We shoved them in the bag in such a hurry this morning.

Boy: Actually, I want the big ones.

Teacher: Yeah, you can do it next to your name card too. You could make the letter K very big. I think I'm gonna make a big H because my name starts with the letter H.

Teacher: We cut a pumpkin in half.

Girl: This one.

Teacher: Do you know what that is? Do you know what that is? What color is it? Oh, you're cutting that one in half too? You need me to stand it up? Ope. Almost got it. Almost got it. Ooh. Feel it. Can you feel it? Use your hands. Feel it.

Girl: Cut another one?

Teacher: You want to cut another one?

[Video ends]

Treshawn: So, now that you know what this physical and motor development looks like for preschoolers, what we want to do now is document children's growth and development in this area. And so, observing and documenting children's growth and development does require focus observation on our part and intentional engagements with children. And that's something you guys are all saying that how the teachers are really engaged with the children, having the children participate, encouraging their participation as well, in the midst of this busy environment that's happening, so that's awesome.

Judi: One of the other important components of assessment is to make sure that we're asking family members about what they observe in terms of their children's development. And remember, sometimes, children do things at school that they don't do at home. Sometimes they do things at home that they don't do at school, and so, making sure that we're communicating with the family is not only about the milestones, the physical milestones, like tying shoes or walking up stairs. We want to make sure we have those milestones, but we also want to make sure that we're communicating with parents about whether or not they have concerns about their child's development. Sometimes those concerns, we can ease them, or we can say, "This child is right where he needs to be in terms of development." And parents might be thinking he should be doing more. But also, parents might bring up something that we haven't noticed. You know, he's having trouble holding a fork during dinnertime, or he seems to be bouncing into the walls all day long. And so, it's really important to have that two-way communication. Families are the best source of information about their child's growth and development, and we want to make sure that we have a clear picture of what the child is doing at home and at school.

We want to remember, also, especially for those of you who work with children and families, families of children who are dual language learners, they might know physical movement vocabulary in their home language but not in English. So, just jump or run or crawl, and so we

want to make sure that we're not assessing whether or not they have the skill because they don't understand the words or what you're asking them to do, we want to make sure that that they have comprehension of what the tasks are and that they can show it to us. So, again, a good reason to be communicating with families if we can. And there are ways to assess children. I mean, physical development is one of the best domains for assessment, even if you are not fluent in the child's language because so much can be learned just by observing them. All of the tasks that you mentioned about assessing children's fine and gross motor skills, you can assess a large majority of them without being able to speak their language. And so, don't let that get in the way of your observation and documentation of their skills and their development in this domain. And then, just make sure that you're communicating with families about their development as well.

So, anyway, I want to thank you for hanging in with us today. I know that we had some bumps in the middle of our session, but thank you for sticking with us, and I'm glad the sound came back for you. And I also want to thank you for being with us for this entire series. There's some of you I've seen in the chat room every single episode. And we've had a really great time walking through the ELOFs with you, in terms of how children grow and develop and how we can support that in social and emotional development, in cognition and mathematics development, and literacy and language development, and then finally, today, in our motor and physical development. So, we hope that you found this series to be really helpful for you and informative. We hope you got some good ideas from it. All of the episodes are available, and the additional resources are available on MyPeers and they will be available on the ECLKC. We want to leave you with some resources, as I mentioned before, a list of resources is available on the viewer's guide, so if you haven't downloaded that yet, please download it so you have those resources. You can find other resources on the ECLKC as well. We've talked to you about MyPeers, Jan put the link again in the chat box for MyPeers. Also, you'll get a text from DTL with a link to a valuable resource. So, it's just an easy way to keep up to date, and Jan put the link for Text4Teachers there. And also, finally, ELOF2GO. This is an app, and it has the ELOF on it. So, if you've enjoyed learning about children's growth and development on the ELOF, this app has ELOF so you can have it on your phone, and it has lots of ideas and strategies for you around teaching practices that supports children's growth and development in the ELOF domain.

Judi: All right, enjoy your weekend everyone.