

Teacher Time: Perceptual, Motor, and Physical Development for Infants and Toddlers

[Video begins]

Teacher: You like it? Mia has opened her banana all the way. She's getting all the banana out of there. Huh, Mia? Yes. [Mia laughs] [Laughs] You're pulling that peel with your teeth. Yes, and getting that banana open. How's it taste? Hmm? Does it taste the same or different than the avocado? Huh? What do you think? Do you think it is the same or different? [Mia babbles] Bananas are sweet. Huh? And avocados are not so sweet. They're just plain. [Mia babbles] You see our avocado seed? Yes, this was in the middle of the avocado. [Gasps] Oh, you're choosing the shaker with the bells. Come on, Mia. You want to come? You want to come see our toys? You're still waking up, huh? OK, let me help your friend Mia. I think she's feeling a little shy. Miss Nancy, can I trade you? Mia, come here. How are you, huh? See new friends in our classroom? Hmm? Yeah? We got some friends in here, huh? Do you want to play? What do you want to play with? Look what we have here. Let's see.

Narcy: Is it good?

Teacher: Look. What do you choose, huh? We have the purple ring. Oh, are you going to use the ladybug, huh? [Singing begins] Ladybug, ladybug, shake, shake, shake. Ladybug, ladybug, shake, shake, shake. [Singing ends] [Laughs] I see you. I'm still here. [Mia coughs] Yes. I had to go get your friend Mia. She was feeling a little shy. Yes. What's this one? [Speaking Spanish] No castanets, huh? [Toy rattling] [Gasps] [Singing begins] Shake, shake, shake, shake, shake, shake. Shake, shake, shake. [Singing ends] You're making sounds, Mia! When you shake it, it makes a sound, huh? Uh-oh. Oh. [Singing begins] Shake, shake, shake, shake, shake, shake, shake. [Singing ends] Yes. Let me see. What do you think this one will do? [Singing] Shake, shake, shake, shake, shake, shake, shake. Do you think the ring will make a sound? You showing Miss Nancy? Yes! What else can you do with that? Hmm? Let's see. How does that feel on your gums, Alexandra? Hmm? How does that feel? Does it feel hard? Yeah? Does it feel hard? Do you want to try something different, Mia? Oh, thank you. Good cleaning up. You put it in the basket, huh? You put it in the basket. Huh? What's this? What's this? What is that? [Mia babbles] You want to see? Come. Come. Are you feeling a little shy? [Mia laughs] The giraffe! Let's see how the giraffe works. Let's try it. Look. Twist. Twist it on. Twist it off. You want to try? Twist. Yes, you're turning it! You made it tighter.

[Video ends]

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

Treshawn Anderson: Hi, Judi. How's it going?

Judi: It's going well. We are here from the National Center on Early Childhood Development, Teaching and Learning. And we're excited to be here today to talk about perceptual development, one of the infant-toddler subdomains in the Head Start Early Learning Outcomes Framework, or as we like to call it, the ELOF. So, why focus on this particular subdomain? We know that infants and toddlers learn with their whole bodies. They use all of their senses – touch, vision, hearing, smell, and definitely taste, and they explore and learn about objects and people and themselves through these senses. And we've heard from many of you that this subdomain may not be as familiar to you as the fine motor and growth motor subdomains. So, we're going to look at perceptual development because it's so important and relates to fine and gross motor development, but also other types of development, as well. And so, your interest in learning more about perceptual development motivated us to dedicate this last infant-toddler Teacher Time for this series to this very important topic. But before we jump into that, we're just going to give you a little bit of information about this webinar so that you can use it, and we'll be using some of the Adobe Connect features to help us interact.

Treshawn: Yeah. So, at times, we're going to ask you to type in the chat box, and many of you have already started doing that, introducing yourselves and telling us your favorite perceptual development activities. So, that's great. And so, we're going to ask you to type in the chat box, which is located to the left of the PowerPoint and right below our videos here. And so, we want this next hour to be really interactive as possible. So, please ask questions, add your thoughts and comments as we ask in the chat box and as we go along. And we're going to do our best to address them as we can. And so, we're going to be asking you questions, and you can answer right there in the chat box. And our friend Jan Greenberg, also from NCECDTL, is going to be in our chat box, as well. She's already started introducing herself in blue and talking with you guys a little bit. So, she'll be responding to your questions and providing resources. So, look for her typing in blue. The supporting documents for this webinar can be found below in the "Supporting Documents" box on the bottom-left side of your screen, and that's going to be the PowerPoint and the viewer's guide, which you can download and either print or just type any thoughts or ideas you have directly into the document. And if you've been on Teacher Time before, you know that there's going to be lots of cool videos in this session. And if you're listening on the phone, unfortunately, you won't be able to hear the audio for those videos over the phone. But if you mute your speakers and turn on the audio of your computer, either by turning on your computer speakers or clicking the speaker button there at the top of our screen, the Adobe Connect screen, you might be able to hear it that way. So, go ahead and play around with your settings until it works for you. And if you still can't view or hear the videos, that's OK, because you'll be able to watch this webisode on MyPeers when we post it within the next week. And so, if for any reason you get disconnected from the webinar, please join us again using the same link that you used to join.

Judi: Yeah, that's great. And the last thing we want to make sure that you do is at the end of the webinar, we're going to post a link to an evaluation form. And if you've been here before, you'll know that link comes at the end. And we really appreciate getting your feedback because we use this information to improve our future webisodes. And also, after you complete the evaluation, you'll be prompted to download a "Certificate of Completion" for your participation

in the webinar. And if you're viewing the webinar with colleagues – I saw someone in here already said that a group of you are viewing this together, and if only one person is registered, you can forward the evaluation link to your colleagues who also viewed the webinar so that they can complete the evaluation and get their certificate. And just as a reminder, we say this every time we use the term "teacher," and what we're really doing is referring to any adults who work in group care settings – teachers and family child care providers – but we recognize that we have a wide variety of participants here with different roles. And so, for all of you who are working in environments that support infants and toddlers, we hope that you really find the information here to be helpful, whether you are supporting infants, toddlers, or a mixed-age group, or even the parents and families of infants and toddlers. We hope that you find this information and some of the strategies that we provide and the resources – we hope that they'll be useful to you in your specific setting. And then, finally, all of the Teacher Time episodes, including today's, will be available. They are available and will be available on MyPeers and then permanently, they'll end up on the ECLKC. So, if you aren't familiar with MyPeers, it's an online learning community where you can join groups of interest, like we have a Teacher Time community. There's also a home-visiting community. There's one for staff wellness. These communities are really designed to help you brainstorm and exchange ideas with your peers and share resources with other colleagues from across the country. It's really easy to join. It's free. And we'll remind you about it again at the end of the webisode in case you want to check it out. And then also, remember, if you want more resources, you can always go right to the ECLKC to find additional resources on today's topics, as well as other topics related to the ELOF and the work that you do, especially with working with infants and toddlers.

Treshawn: All right, that was a lot of information. I hope you got some of it and you're able to connect and evaluate and listen and ... But now we're going to go ahead and get to our topic. So, today's topic is perceptual development. And to get us started, tell us in the chat box, what does perceptual development mean to you? It's not something that we talk about all the time, and it's something that some of you guys said that you needed some help on. So, what does perceptual development mean to you? And why do you think it's important, for instance, in toddlers? So, as you guys are responding to that question, we're going to go ahead and talk about perceptual development a little bit. So, perceptual development refers to children using their five senses, as we talked about before, so touching, tasting, hearing, seeing, and smelling. And to gather – So, they use their senses to gather and understand the information about the world around them and how to respond to the world around them. And for example, so, you may – an infant may hear her teacher talk and turn her head towards the teacher's sound, or a toddler may see his family child care provider feeding a baby and decide to pretend feed a baby doll while sitting next to her. And so, these infants that I just explained – infants and toddlers – are using their senses to gather information and then to respond accordingly. And so, perception helps infants and toddlers understand and direct their everyday experiences, such as noticing when they move their hands quickly in the water, that some of the water may splash upon them. Or like my 2-year-old yesterday was feeling for the rungs of his highchair with his feet before he stepped down to help himself out of the highchair. [Laughs] Or children may notice differences in textures of their food that they've been eating. They might squish it in their hands first before they put it in their mouths to taste it. And so, the

ELOF describes progressions for two important goals with perceptual development. And that – the first is that children use perceptual information to understand objects, experiences, and interactions. And then, second, that children use perceptual information in directing their own actions and experiences and also their interactions with others.

Judi: Yeah, that's exactly it. And a lot of respondents have said this is how children gather information around them. I see Donna said that. Teri – I like how she said, "Organizing the information. Take it in the other senses." And so, that's getting at that brain work that's happening related to what they're experiencing in the world. So, lots of you have already got a head start on that, how children understand the space around them, how they build their brains through their sensory experiences. And that's great. So, we're really excited today to have a guest here to help us explore perceptual development a little bit more. And we're going to be joined by Dr. Sherri Alderman. She's from the National Center on Early Childhood Health and Wellness, and she's a developmental pediatrician. And so, she's going to come and just give us some insight into what happens with young children, why perceptual development is really important, and how we can support it in the various roles that we have. So, we're excited to welcome her to this episode to share a little more information. Oh, there she is. Hi, Sherri. How are you?

Treshawn: Hi, Sherri! Good to see you again.

Dr. Sherri Alderman: Nice to see you. Thanks so much for having me.

Judi: Thanks for being here. So, can you just give us a little bit of an overview in terms of why perceptual development is so important to focus on for infants and toddlers?

Sherri: Absolutely. My pleasure. Perceptual development is key to building brain development, and that brain architecture is going to be defined by the sensory experiences that an infant or toddler has. The result is that their neural pathways that are – that are connectors in the brain and – and are reinforced in response to that environmental experience – those neural pathways in part determine a child– infant or toddler – a child's emotional regulation or dysregulation depending on the kind of environment that they have, that they are experiencing. And that emotional regulation is really key to social interaction. And as we know, all children learn in relationship and their social interaction, so it impacts learning, and it can even impact mental and physical health. So, a child learns through that relationship that they have with a caring adult who is emotionally regulating themselves, and through that positive experience, a child builds self-esteem, they build self-confidence, and they build a sense of safety and security that liberates them to be able to interact in that world around them and learn. So, as they begin to develop a sense of self, they then begin to appreciate that – that outside of themselves are others, and those others in their world who are responsive to their experiences in the world, then can help them to appreciate that that baby and that toddler actually have an impact. Their behavior has an impact on those around them. For instance, a baby cries, and a baby learns that when they cry, that there will be a caring adult who is responsive to them. And as we move outward beyond those infant and toddler years, we see that that experience lays down the

foundation for a child developing empathy and – and, ultimately, morals and ethical values, as well.

Treshawn: Right. So, you just highlighted that perceptual development spans across all different types of development, which is awesome. What do you think we should know about how children develop their senses between birth and age 3?

Sherri: Well, that's a great question. Those early years are so dynamic and so exciting to observe, and we adults play such an important role in that. We also know from research that a newborn is already born with the developing capacity and capability to process sensory information – that limbic system of the brain. In fact, a baby's brain developing during pregnancy while in the womb is responding to environment. It's responding to that – the endocrine hormonal environment of the mother, and it's responding to the external environment of some other loving hands. And we – that behavior that we see at birth that we sometimes call temperament is actually a reflection of the brain development that has occurred while in the womb in response to the environment that that baby has experienced with the mom. Babies are born with a very robust and very sensitive sensory system. Some theories say that a baby – a newborn baby actually does not have the chief sensory components, per se, but rather is what we call amodal – that is, all of those different sensories – sight, sound, touch, etcetera – are all blended perfectly together as one mode of sensory. Over time, in a matter of months, that infant does begin to appreciate the distinctive sensation between the different sensories and uses each of those to explore the world around them. As they begin to connect those – make those connections in their brain, we begin to see integration – that is, neural pathways that connect that sensory information to the motor system, to the cognitive system, prefrontal cortex, etcetera. And with that development, then a child is beginning – it's a lot – it's a much more involved process that takes several years. They're beginning that process of being able to be thoughtful about their behaviors instead of just purely reactive so that they are able to pause for a moment, think about what they might do in response, and develop more control in their behaviors. Again, that takes many years of practice and experience. And it's through that repetition and opportunity to repair, which is very important, when it didn't go quite as well as would be expected, that a young child develops a consistent pattern of, eventually, self-regulation and what we view as resilience.

Judi: I think that's really interesting just to think about – it's almost kind of this invisible thing that we may not see developing, but it's there, developing. And I think it's really helpful for you to explain that so we can appreciate a little bit more about what's going on, you know, when a child throws a toy across the room, you know, what is – what is involved in terms of them developing the ability to be able to control their impulses, you know, in terms of throwing – or throwing a food on the floor or something like that. I think that's really helpful to think about. So, I know that especially in the early years, a lot of times we hear terms like "sensory motor" and "perceptual motor," and these terms can seem kind of, like I just said, like, not super clear in terms of how we understand them and how children exhibit them, so could you just tell us a little bit more about these terms and how sensory motor and perceptual motor relate to this subdomain that we're talking about today – perceptual development?

Sherri: Oh, that's a great question. Yeah, it's really fascinating to think about that. We know that sensory input does influence and prompt motor responses. And one of the first ones that we see in that newborn is when you brush their teeth – that breathing reflex and they will turn to suckle, which is a very important reflex to have. There are other reflexes, too, that are embedded from moment of birth. There's primitive reflexes. There are – like antigravity reflexes, grasp, etcetera. Some of those do disappear after a couple of months, but those are also instances where a sensory component calms a motor response. We all have, from birth, the natural tendency to withdraw from painful stimulus. So that is another – that sensory comes in – that burning item or sharp item, and we intuitively, spontaneously withdraw from that motor response. [Indistinct] talks about sensory motor as being really the first stage of cognitive development. So, that baby, that toddler – they're responding to light and sound, especially moms' and dads' voices from a very early age, and that will attract their attention. Babies mouth objects in exploration. I tell parents that – that's their – that's their baby's first scientific experiment, and they're exploring it and they're figuring out what does it taste like, what does it feel like, and how can I use that information to apply it to the world around me? A baby will [Indistinct] shaking a rattle, banging, and again, experiencing those sounds and textures. You can think about, what if they pick up a rattle and it doesn't shake? They might get bored with it and they throw it down and they move to something else that is more sensory stimulating to them. So those are all ways that a baby and toddlers use sensory to be able to learn about the world around them.

Treshawn: It's interesting that you say that babies are almost primed to want to explore their senses and their sensory-motor experiences. And it's like they want to do that. It's what they're, like, born to do. They're born ready to explore. And so, it's interesting as we talk about screening and things that we can look for, things that we can help children develop in this. Have you – How does sensory and developmental screening play a role in helping us understand children's perceptual development?

Sherri: Wow, thank you for that question. It's so important to be assured that every baby and toddler has the optimal use of their sensory system and hearing, vision, etcetera. And that's really why we have universal screening. And that's so important. That universal screening is for hearing, for vision, for developmental screening, as well. Universal meaning that it applies to all children at certain points in time in their development. And so, it's also a scheduled process. So it's not something that you naturally – would let arise naturally, but rather that we, in that point in time, actually schedule to have that screening happen. And it's important that it happens more than once.

Judi: Yeah, and so the screening is there definitely on a regular, scheduled basis to make sure that we are regularly checking in to make sure that children are still developing as expected. But what about children who may already have identified disabilities or suspected delays that might influence their sight or their hearing or other abilities? How can we still support them?

Sherri: Yeah, that's where we really get to work and can do some fabulous things to support that child. The key to supporting professional development for children with disabilities or developmental delays is to create opportunities for the child to experience relationships with, again, those nurturing, loving adults and having a sense of being held. This requires that the staff have training such as today's webinar and, in addition, policies and practices in the workplace that provide lessons so that we can understand the children's differences and accommodate them so that they – their unique needs in that learning setting. Children with disabilities and other challenges communicate to us the best that they can what they need to succeed, and what appears to us sometimes as challenging behaviors – and certainly for us, they can be very challenging and perplexing – is the child's best attempt at communicating under stress that they are in need, and then it becomes our professional responsibility to translate that need into ways that we can understand it better and then intervene to support from. So, as we become aware of the different patterns that children have and their individual differences, we can be more attuned to when there may be some kind of adverse impact to one of their sensory systems and respond to that with appropriate screenings or referrals. And we can also begin to modify the environment to support them and provide them with various opportunities in that learning setting. Sometimes consultation can be very helpful – someone coming into that setting, kind of viewing it from a higher level to see what is challenging for the child and make decisions on how to modify that. And the beauty of that is that that modification in the classroom to support an individual's needs oftentimes is also supportive of the other children, as well.

Judi: Yeah, definitely. I love that. Creating an environment that's going to be supportive of all the individual children in your room, but definitely adapting so that all children can be successful. I think that's a really valid point. Really important to remember. Well, thank you for that. We're just going to switch quickly to watch a couple of videos that will identify – or that will show some of the strategies that you've mentioned. So, let's think a little bit about, as we watch these videos, tell us in the chat box what you see and what you think the teachers understand about perceptual development and the infants and toddlers they're working with. Let's watch, and then we'll come back and chat about it.

[Video begins] [Child speaks indistinctly]

Teacher: [Singing] Twinkle, twinkle ...

Child: Aah!

Teacher: Aah! [Laughs] [Singing] Little star Twinkle, twinkle, [Child humming] little star, how I wonder what you are. [Laughter] Twinkle, twinkle, little star. How I wonder what you are [Video ends]

Judi: So, these are some of my favorite videos that I have, and some of you guys have already commented on things that I saw, too, as far as using – the child in a box, using their space accordingly, the caregiver providing an opportunity for him to explore his body. The child watches – So, in the first video, the child sees that he's able to fit himself in the container, and

the teacher just encourages that free exploration, getting his whole body into the container, even sticking his foot in to show him that he can get all the weight in, into the body – into the box, which is really great. And then the child, at the end, perceives that the box – that the ground is slippery when he's getting out of the box, and so holds on to the caregiver and that she helps him out with that. So, you guys caught on to that, as well. That's great. And with the second video, the "Twinkle, Twinkle, Little Star," the little boy just humming along is just the most darling thing ever. But he's really looking at the family child care provider's face and her hand movements to perceive the interaction that they're having. And then, he starts to open and close both hands to match what she's doing, as well. He's vocalizing as she hears – as he hears the teacher vocalizing, as well. And then, he's taking all of the visual cues and auditory cues from the child care provider and the older child that comes in towards the end of the video. So, these are great examples of how children are using their perceptual development within the context of the classroom. And so, now, we're going to talk about effective teaching practices. And so, we've already started identifying and talking about effective teaching practices that support perceptual development. But we're going to invite Dr. Alderman back again to share with us some of her ideas for helpful practices. So, when she comes back on, we're going to ... explore what suggestions she may have. So, Dr. Alderman, what suggestions do you have for how teachers and family child care providers can support infants' and toddlers' perceptual development? Similar to what we saw in the videos, but if you have other ideas, that'd be great.

Sherri: Yes, there are lots of ways that we can do that, and they really are fun. I thought the videos were great, too. They show the delight, the shared delight, and certainly, being in a state of mind of delight and pleasure is a fabulous state of mind for learning, as well. So, as we saw in the video, we can encourage children to use their senses. And, for instance, the baby lying on his back with the mobile, sort of in front of him there, encouraging him to reach out and knock it around – that's not a great way, and also so that that baby doesn't get bored, continues to be stimulated at just the right level for learning, can be moved around the room multiple times throughout the day to see new places. And it's always encouraging to acknowledge a child's efforts and accomplishments when they use those senses and labeling what it is that they're doing. And then – and also using ourselves, talking about our own sensory experiences with the child – that the child sees that it's a value that we have and that it is – our sensory experience may be different from theirs, which, again, promotes that perspective-taking. That's so valuable. It's great to have a variety of toys – toys of different colors, different shapes, different textures, and play materials for that toddler to experience throughout the day and arranged in that indoor and outdoor settings in such a way that there are opportunities to merge that motor and that sensory in play. It's also great to acknowledge – to be knowledgeable about a child's sensory differences and to provide scaffolding so that that child has just the optimal amount of challenge and is assured of being successful to build that self-esteem and confidence, again. And praising for the expense of effort that they put into it, more so than the actual outcome itself. Our research has clearly indicated that praising the effort is far more constructive than the outcomes. And then describing properties of objects as that wonderful teacher did in the video and speculating what that infant is experiencing when they begin to mouth that toy, for instance.

We also want to use our best language – our first language when we are interacting with children. It's very important that they get that experience, that fluidity of language. And it's important that we feel comfortable in our communication with them. And we all have a desire that a child experience the language that they're experiencing in their home. We all have great value on learning a second language. But in this particular setting, using – ourselves, using the language that we're most comfortable with is going to be the most effective way of promoting learning for that child. And we want to share that message with the parents, too. Then the parents have those same values of wanting their child to learn a second language. However, it's most important that that child experience the family's language with the parent to get, again, that fluidity and, probably even more importantly, to know that the culture of that family, the traditions of that family are being conveyed and the values of that family have been conveyed to the child when the parents are using their first language. And then, of course, we want to assure parents that this is not only appropriate, it's really valuable for a child to be mouthing toys, to be mouthing those very precious board books as a way of exploration, as well. We want to mention, too – share with parents the value of "messy play" and the importance of being able to get their hands dirty and perhaps even throw in the area around them, because that free play with a variety of textures is going to be a very valuable experience for that child.

Judi: And I do think sometimes some family contacts will come into play here in terms of parents who don't want their children to get messy at school. But I know there's – we often have the opportunity to provide either some kind of protectant, other type of clothing so that children can still have the sensory experience without maybe challenging their clothes. But I do think you're right that it is important that kids aren't just getting messy because they're making a mess, they're getting messy because it's part of their learning experience. I think that's really helpful. So, in addition to what you just told us about effective practices, can you give us a little bit of information about sensory overload and what that might mean for infants and toddlers? How can we tell if an infant or a toddler – if their senses are overloaded or over-stimulated or even under-stimulated? What can we do in terms of recognizing that and meeting those children's needs?

Sherri: Judi, thanks for that question. That certainly brings the conversation to the next level, and it is important to – that we all are aware and sensitive to what kinds of stimulants and what level of intensity of stimulation can be provoking to the young child, to the point of where they become dysregulated. And when an infant or toddler overreacts to stimulation from her environment or isn't able to accept input from her senses easily, the result is, by definition, sensory overload. And this happens when a child is given too much stimulation at a given time or isn't able to tolerate certain types and levels of stimulation. So, it can be something that is related to the time of the day, or it can be related to a particular type of sensory itself. It varies, too. So, some infants and toddlers may be over-responders, and some may actually be under-responders. Over-responders are, by definition, emotionally dysregulated by sensory stimuli in the environment that is perceived by the majority of people as not being dysregulated. And an under-responder – individuals who need more intense stimulation to rise to a resting level from which they can then react to a state of responsiveness. So, a child can be an under-responder for some sensory information and over-responder for other sensory information, so, you see, it

gets pretty complicated and brings us back to that value of knowing individual differences. And it's important to recognize that children might be experiencing that sensory overload because that sensory overload can manifest itself in several ways, all of which include learning. Some clues that you might see as an infant includes maybe the infant will turn away from the stimulation. Maybe they'll freeze, just completely shut it out. Maybe they'll cry inconsolably and then we have to figure out what's going on there. They can also become tense. They can [Indistinct] their arms. They can tense their whole body. They can arch back. Those are all indications that a child is getting dysregulated. A toddler may just shut down and refuse to participate. And we all have sensory differences. And as we mature, we develop behaviors that are socially acceptable and allow us to stay engaged, even in an environment where we become over-stimulated. I always wear an extra layer because I know I'm going to be cold in an environment that everyone else is perfectly comfortable with. Maybe we chew gum to stay focused. Maybe we wear a headset to shield out external sounds so that you can pay attention and engage in your work. Maybe you stand up and move to the back of the room to be able to continue to stay engaged when you can no longer stay seated in your chair. And that really is acceptable. We welcome that, actually, in some other adults because we do want them to stay engaged and that is the most effective way of doing that.

Judi: I love that the parallels are there. Like, we have to remember that infants and toddlers are humans, too, and have their own way of dealing with the sensory input that they're experiencing.

[Video begins]

Teacher: What would you like to do? [Child speaks indistinctly] Is your sleeve a little bit wet? It is a little bit wet. Do you want it down? Down? Child: It got in the sink.

Teacher: I know. In the sink, it got a little bit wet, didn't it? Some water splashed on it.

[Video ends]

Judi: So, tell us, what did you see there, just that really quick clip of the way that child was speaking to the teacher and the way she responded?

Sherri: That is a fascinating clip and illustrates some really beautiful interaction, I think. And it's also an opportunity to talk about right- and left-brain integration – again, those neural pathways crossing back and forth. And the right brain primarily involved with emotions, with the left brain where language is. And what we saw was that little girl really creating a coherent narrative, a little story about what had happened to her, which was apparently some kind of disturbing experience that she got her sleeve wet. And what we saw was a beautiful response from the teacher. First of all, reflecting that this child has learned that they can go to a caring adult in the classroom setting or outdoors when they are beginning to get disturbed by events and have someone to share that experience with through the story. And the teacher got down at the child's level so that they could look eye-to-eye. The teacher was listening, and she was communicating to the child that she understood what she was saying because she was

reflecting back what the little girl was saying about her sleeve. Those were all really beautiful interactions. What we see here is that the child is attaching this story, this narrative that she was sharing using language to process the disturbing experience that she had of getting her sleeve wet. This indicates that she is really ready to go to the next level in terms of integration. And what the teacher could have done to help her do that would be to articulate that emotional aspect of the experience. She was providing all the logistics, what had actually happened. And the teacher could have engaged her in connecting that with the emotional experience that she was feeling and be able to articulate that by saying maybe something like, "That was disturbing to you, to get your sleeve wet." It validates the child's emotional experience and connects it with the story that they are telling. And it creates that right- and left-brain integration, which can get more and more complex over time and really contribute to cognitive development, as well. It's also the strategy that, as adults, we use in processing our own traumatic experiences to create those narratives and rise above those experiences that we have.

Judi: That's so great. Thank you. I mean, that was like a really quick 15-second clip, and you got so much out of it about what that teacher was doing to support that child and how the child was experiencing the world. And I think you've really helped me think about how I could be more thoughtful about children's perceptions of the world and how I can support them. So thank you for everything that you offered us today, Dr. Alderman. I wish we could talk to you for another hour, but I know you're going to stay on after to chat with us when we get through, so in about 15 minutes or so. Just stick around, and if you can come back on, maybe some people will have some questions for you. We'd love to chat with you further.

Sherri: Thank you.

Judi: Thanks. So, we're just going to take a few quick minutes to talk about the context for all this learning, and Dr. Alderman has already mentioned so much of this about the positive relationships that you develop with the infants and toddlers that you work with, the way you set up your environment, and the sensory experiences that you provide. We know this, in the ELOF, is part of the domain of approaches to learning, and that domain is really about how children learn what they experience rather than specifically what they learn. And you'll see today we've talked all about how children are experiencing the world and not necessarily what they are learning, but how their brain is developing in response to the sensory information that they're gathering.

[Video begins]

[Baby babbling] Teacher: Look see, it's round and bumpy. Look at this ball. Oh, now you have it down low? Oh, pick it up. You've got it. Now, it's in your mouth.

[Video ends]

Judi: I love that video. First of all, that baby's adorable. [Laughs] But I see some of you are saying – Patty, you mentioned that she's labeling the action, as well. That's right. It's not just

the feeling, but the action. Using descriptive words. Chastity – "I see the infant is exploring the ball with senses." Right? He's got his hands on it, his mouth on it. There's a lot of description. The teacher's mapping out with the infant is doing. That's so right. You guys are right on. And also, this is all within the context of this safe environment and this nurturing relationship. And that's exactly what approaches to learning is about, creating this environment, like Dr. Alderman said, where it's safe, they have a trusting relationship, and then the child is free to explore. And I think one of the things we want to remember, too, Dr. Alderman mentioned communicating with families about the need for children to explore their environment and learn through their senses. We want to make sure that we are sensitive to family values and beliefs and cultural practices and how they approach and how they support their children in approaching and engaging and learning. So make sure that you build that communication with families, helping them understand why your environment is set up the way that it is, understanding how their environment is set up at home and how children – and whether children are able to explore freely and what kind of sensory experiences they have. And also, as Dr. Alderman said, what languages are used at home so that we can provide that same context in our settings, as well. Knowing what the families value in terms of approaches to learning will help you understand the children you work with so that you can better meet their needs.

Treshawn: Yeah, and earlier, Dr. Alderman shared about how sensory and developmental screenings really help us to support children's perceptual development. But screenings are just the beginning of the story. Screenings tell us about children's perceptual development at a specific point in time and can help us see and learn about different and possible delays. But we want to try to use ongoing assessment because ongoing assessment, which is observing and documenting children's growth and development over time, gives us the information that we need to support and individualize children's learning. And this requires focused observations with intentional engagement with children. And so, ongoing assessments not only help you know how children are progressing in their perceptual development, but it also shows you when they're not. And sometimes it's through this ongoing assessment that we can first see signs of suspected delays and we can use that information to make a decision on referrals or additional screenings. And so, it's also important to talk with families about their children's perceptual development. Families are key. And so, what do parents use? What do parents see and other family members see in their children? And what kinds of sensory experiences do they have at home and in their community? And even more importantly, what languages do they talk to with children? And do they have any concerns about their children's development? And so, remember that children's experiences at home may be different from what they experience in their settings, and that's OK. So it's important for teachers and families to share what they observe in all settings, across all settings, so that we can come together on one accord, and families will be the best source of information about their children's development. They can help you interpret what we observe in the classroom and then help fill in those things that we don't always observe. And so, now we're going to put your observation and documentation skills to use and talk about how you are assessing infant-toddlers' perceptual developments. We're going to watch a video of an older toddler in a family child care setting playing with a waterwheel.

[Video begins]

[Tricycle squeaking] [Woman speaking Spanish in background]

[Video ends]

Treshawn: Yeah, so, it's a pretty short clip, but we've got people saying that they saw visual and hand-eye coordination. "We see some fine motor skills happening." "The child is using their hands and eyes together and touching the water." "He looks like he's wondering where the water is going." That's awesome. Those are things that I pulled out, too. So, what I observed was he's using his sight and touch to explore the water in the wheel. He's scooping the water with a shovel and using the shovel to put the water in. So that's definitely hand-eye coordination. He watches the wheel to see if it's going to move when the water dribbles down. And so, it's like he's wondering why the wheel is not turning. So, yes, some cause and effect, Peggy, I see that. And then he also looks away for a little while to see the other children, but he continues to scoop the water. So he's using his perceptual skills to know that the water is there and that everything is there, still, for him to touch and play with, although he's not directly playing with it. So to support this child's learning of his perceptual skills, I would describe what the child sees and does, use descriptive language. That's what some of you guys are saying in the chat box, as well. Maybe offer him a larger cup to scoop up the water with or add more water to the table so he can feel the weight of how much water is going into the waterwheel and actually see the wheel move and then maybe ask some simple open-ended questions about, "Why don't you think the wheel is moving? And what do you think we can do to help it move?" And you guys are saying some of that in the – in the chat box, as well. Oh, Sally says maybe add some sand. Yeah, get some different textures in there. That's great.

Judi: Yeah, and it makes me think of what Dr. Alderman said about how very young children are starting – especially babies – they start to understand their impact on the world. And I think this is a great example of a very young child recognizing that he has impact, right? Scooping the water is a – it's causing that waterwheel to move. And so, he's having impact through his motions. And, you know, that's leading to thinking way down the line – of thinking about the impact of water and the power that it has in physics, requiring things to move. But she has really made me think about how I want to be more intentional about my observations. And you said that, Treshawn, about being focused in our observations and not just saying, "Oh, this child is playing with a waterwheel," but really, what is he experiencing as he plays with the waterwheel, and what impact is that having on his senses? And then if I'm thinking about that, then my questions might be a little bit different. Like some of our participants are saying in their questions, they might change because they're thinking not only about what he's doing, but what he's experiencing. And I think that's really powerful. And it's a new thought that I have today, thanks to Dr. Alderman. [Treshawn laughs] And thank you all for your comments in here. You guys have some great strategies for building on what this child is learning and experiencing in the water table by adding different things to see and feel, describing and giving some words, showing curiosity. I love that. Right? We can demonstrate curiosity, too, in a way

to support children and their learning. So, we are just about out of time. I don't know about you, that hour went by like a flash for me.

Treshawn: It did. [Laughter]

Judi: That's it for today. And I really want to thank all of you who are here for joining us, whether today was your first infant-toddler webisode or if you've been with us for the whole series. It's really been wonderful to hear from so many of you about what you do each day to support the growth and development of infants and toddlers. We've enjoyed walking through the ELOF with you over this series, and we definitely want to continue the conversation. So, as we mentioned before, we'd love for you to join our MyPeers community. We got some endorsements from participants in the chat box telling us how great they think MyPeers is. And Treshawn and I are in the Teacher Time community all of the time posting things for you and chatting there. So we'd love to continue talking with you there while we wait for the next season of Teacher Time to start. And then also remember, we have the ELOF2GO, which is really a great app that you can download onto your phone. And it has everything that you need to know about the ELOF, plus some guidance about using it and teaching strategies that you can use in your settings. And then don't forget Text4Teachers. It's a great resource. If you sign up for Text4Teachers, you'll get a text every other week or so with a link to something new on the ECLKC or a resource related to a specific topic. It's another way to stay connected to our community. Well, we'll let you go. Thank you so much for being here.