

## **Playful Learning Environments for Infants and Toddlers**

Dawson Nichols: Welcome to "BabyTalks." Thanks for joining us. "BabyTalks" is a series of webinars for teachers, providers, and home visitors working with infants and toddlers, serving Early Head Start, Head Start, and child care programs. These webinars will introduce you to some of the research behind the Head Start Early Learning Outcomes Framework, or the ELOF. My name is Dawson Nichols, and I am from the National Center for Early Child Development, Teaching, and Learning. My colleagues and I from I-LABS, the Institute for Learning & Brain Sciences, will be presenting these webinars. I-LABS is a partner organization in the NCECDTL consortium. It's one of the leading infant research centers in the country. We love working with infants and toddlers. We love playing with them, too. And that's our subject today – "Playful Learning Environments for Infants and Toddlers."

"Playful Learning Environments for Infants and Toddlers." Let's talk about play. Did you know that play has been around longer than people have? It is true. Animals play. This child is playing with her dolphin. This is play. And so is this. Dolphins play. This is play. Lots of children play with teddy bears, but this is play, too. Bears also like to play on their own. Did you know all mammals play? Also true. And play researchers – which, by the way, I think sounds like a terrific job. Sign me up – play researchers have found that the amount of play a species of animal engages in is directly related to the size of that animal's prefrontal cortex. That's the part of the brain that does all of the higher cognition – reasoning, planning, deciding, monitoring, and organizing all of your thoughts and feelings. The species that play more are the species that are better at these kinds of thinking. Researchers have also found that periods of play coincide with bursts of growth in particular parts of the brain. When animals are young, for example, lots of play, lots of brain growth. As one neurologist has put it, "Play is the important work of childhood and the base from which all learning grows." It's true. Animals that are familiar with themselves, playing with themselves, learning about their environment, playing with their environment – they thrive.

And nature has devised this wonderful mechanism to help animals, to help us learn these things, these things that we need to know – play. And every human culture makes use of this style of learning – everyone. Play is universal. Play is fun, and so children naturally engage in it. And as they do, they're practicing all the skills that they will need to thrive in their culture and in their environment. They are learning. Play is an engine for learning. But there's actually a lot to know about play. And, importantly, there is a lot that we can do to help infants and toddlers maximize their learning through play. So, I want to share two things with you over our time together. First, I want to talk to you about how adults can effectively use scaffolding to support different kinds of learning during play. We'll talk about some research that shows how play supports learning in different domains, and we will look at some examples. After that, I wanted to describe effective play environments and activities so that we can create them for the children in our care. Following this webinar, you should be able to identify how scaffolding play can support learning, and you should be able to create effective play environments and activities within your own program with the children in your care, which we all want.

So, here we go. For infants, play begins with the joyful exploration of their own bodies – stretching and wiggling during tummy time, reaching for that object, learning to crawl and stand and toddle. Of course, as they're doing these things, they are opening up – they're opening up their world to new experiences, new shapes, and colors and smells and sounds, tastes, textures. And as we help them with this play, we are opening up this world of learning for them. These activities provide paths to social and emotional development, language acquisition, creativity, and curiosity. This is experiential learning, and it is motivated by joyful engagement. It is also developmentally appropriate. Children play according to their own ability and interest. Play is a natural and effective engine for learning across domains. So, let's learn about how this engine works. And we should probably start with a definition for play, and this is surprisingly difficult to do, because think about all the different kinds of things that we talk about as play. You know, a child rolling a ball here. Playing peekaboo is play. Puzzles are play. Pouring water can be play. Singing together, singing alone, too, which is how I normally do it. Sometimes, play is done alone, but sometimes, it's done in groups. Sometimes, play is laughing fun, but sometimes, it is just intense concentration. It can be simple or complicated, physical or mental, or both. It's very diverse.

Researchers, like this one ... Well, perhaps a little bit older than this one. I couldn't resist the picture, though. She looks like a little researcher. I love that picture. But she will get there. She will grow into a researcher. So, let's say researchers, like this little girl is sure to become – current researchers now talk about play as a whole spectrum of activities. On the left end of the spectrum is “free play,” which simply means that children can play according to their own interests and with less intervention from an adult. It might be just exploring an object during tummy time. It might be playing with blocks or cruising around an enclosed play space. The child is allowed to explore and engage with materials as they like. And, as you can imagine, this kind of play becomes more frequent as children get older. When we think about our littlest learners, they require more supervision and assistance, so much of their play falls into the next categories. Here, we have guided play and games. And, as you can see, both of these kinds of play are initiated by the adult. This is true for most – for almost all of infant and toddler play. They need our help to get the play going. And these kinds of play are directed by the child. For infants and toddlers, this simply means that, you know, we started the play, but we allow as much autonomy in the play as possible. It looks different for children in different developmental levels, and we'll talk about that as we go through the kinds of learning that happen during play. But importantly, these are all kinds of play that we can scaffold. Guiding is really just another word for “scaffolding.” It happens when the child is allowed to direct the play, but the adult is there to help when help is needed. By offering options for play – asking questions or providing other resources – an adult can help the child expand their learning while they're playing, through the play, and ensure that the play is developmentally appropriate and that children with disabilities or suspected delays are playing at their full potential, too.

And it can also focus the play toward particular kinds of learning. Children who are learning more than one language, for example, can be presented with options for play in multiple languages. And it can help maintain interest much – much longer, which also increases the learning. For these reasons, researchers believe that guided play is the best kind of play for

learning. One useful thing about thinking of play as a spectrum of activities is that this acknowledges context. Some activities are play sometimes, but not play at other times. A hungry child, like this one, for instance, is struggling to use a spoon. This is not playing. The child is working on a skill, but she's doing it because she's trying to satisfy a need that she has. And that is work. That is not play. But 10 minutes later, she may still be manipulating the spoon, you know, mouthing it, pushing it through the food, scooping, tossing it over there. This is the same activity, but now she's doing it to satisfy her natural curiosity. She is playing. And that ability to follow her own interest without having some external goal – that is one of the hallmarks of play. Although there is a huge variety of activities that can be considered play, playful activities do share certain characteristics. And this can help us distinguish play from other activities that children engage in.

Here are the other characteristics of effective play that researchers have identified. Play has no extrinsic goals. Play is flexible and adaptable. And the person playing – the person. It's not just children who play, we all play – any person who plays has a positive affect. OK, let's look at each of these in turn. First, no extrinsic goals means that the activity is done for its own sake. A child at play is not trying to accomplish anything outside of the play. Again, playing with a spoon is different from using a spoon to eat. A child plays with a spoon just because she wants to play with a spoon. This is a central feature of play. The child is intrinsically motivated and willingly participating in the activity. Play is flexible and adaptable, and this means that the activity is flexible enough that it adapts to the child's interests and the child's abilities. This makes play an especially wonderful activity for children with disabilities or suspected delays. Play activities – they're naturally flexible, so any child can participate, and they can do so at their own level of development and skill. The term "affect" refers to the way a child appears to be feeling. Play should involve "positive affect," meaning that the child should feel good about what they're doing. We want play to be fun. Now, this can mean that the child is smiling and joyful. We love joyful play. But we say "positive affect" because there are times when a child at play is enjoying the experience, but they're not smiling and laughing. Children at play are sometimes simply concentrated and focused, and we love concentrated and focused play, too. Positive affect is meant to capture both of these. It includes both of these.

OK. So, we've defined play as a spectrum of activities, and we've talked about the different characteristics of play. Now, we're ready to tackle our first learning objective and identify how scaffolding supports learning during play. The Office of Head Start identifies five learning domains in their Early Learning Outcomes Framework, or ELOF. The domains are cognitive development; language and literacy; approaches to learning; perceptual, motor, and physical development; and social and emotional development. Now, as we've said, play helps with learning in every domain, and playful learning usually engages multiple domains at the same time. I will talk about each of these, but I want to concentrate on just two of them – approaches to learning and perceptual, motor, and physical development. OK, let's start with perceptual, motor, and physical development. Here, you can see that one of the subdomains is "fine-motor skills," and it involves things like hand-eye coordination, exploring objects with hands, and reaching and grasping. You can probably think of a number of play activities that would help develop these skills. But let's look at stackers and blocks as an example. Just an

example. OK, so, let's start with ring toys. Children learn a lot from fitting shapes together and stacking measuring cups or cereal boxes or blocks. This can really – it can really capture their attention. And they provide the kind of activity that takes advantage of all the wonderful aspects of play. There is no extrinsic goal. There's no reward. There's only the joy of fitting these pieces together and seeing that they can. It's flexible and adaptable and repeatable, which is another wonderful aspect of play. The child can do it and then do it again, practicing this skill as much as they want and improving and extending the skills. When they mastered stacking rings or cups or blocks, like these, perhaps they would enjoy stacking bigger boxes, even boxes with different shapes, as these children are doing. Oh, more difficult. The play can grow along with the child's development.

So, infants and toddlers love stacking rings and cups and blocks and cereal boxes, so we provide these things, and we're done, right? Well, no. We can do a lot more than that. An attentive adult can make an activity like this significantly more enriching for a child. How? Ah! This is the kind of thing that child development experts are especially interested in. In a recent longitudinal study, researchers studied infants playing with objects on multiple occasions at 10, 12, and 14 months. During home visits, children were offered different objects to play with. Sometimes, one object, and sometimes, several. Researchers measured the children's play in four areas – in depth of attention, persistence, distractibility, and level of object play. And they came up with two really significant findings. First, infants as young as 10 months showed obvious preferences in the types of play experiences, resulting in enhanced levels of play. A lot of people – researchers included – are surprised to learn that infants this young have real preferences, but it turns out they do. And when the children in this study got to play with objects that they preferred, they were more attentive and less distracted. They persisted longer and engaged in more complex play. In other words, when they got to play with a preferred object, they learned more. Now, there could be a tendency to think that an infant who isn't engaged in an activity is just having one of those days. "Oh, he's cranky. Oh, he's tired. Oh, she's fussy." But the problem may be that the child is not interested in that particular activity. This finding suggests that we need to be attentive to a child's preferences. Now, they are not going to tell us about their preferences, so we have to be detectives of a sort. But if we pay attention, we can learn which objects help infants and toddlers become engrossed in their play. We may even be able to figure out why. You know, one child might love an object sorter, like this one, that allows the different shapes to be pushed into a box. Another child might not like that the objects seem to go away. They might be worried about that or concerned about that. Now, recognizing this, an adult might offer a different kind of object sorter for that child – perhaps a peg puzzle, like this one. Simple adjustments like this can lead to the kinds of increased focus and attention found in that study. This can really benefit a child's learning and development.

The second really important finding from the study is that children's play improved when they had several objects to choose from. Sometimes, the children were given one object to play with, and at other times, they were given three. Now, across the samples, from 10, 12, and 14 months, children played longer and more productively when they were given some choice. This suggests another simple way of scaffolding for children. First, be attentive to the child's preferences, but second, offer choices. The first technique allows you to steer the play toward

optimal development. The second allows the child to do the steering for herself. So, it's important to note that, in the study we've been discussing, the children were never offered more than three objects to play with. So, we are not talking about flooding a room with lots of different things. We don't want to overwhelm the child, but we do want to give the child an opportunity to play with something that satisfies her particular interests.

I mentioned that learning domains overlap and that play can help children develop in multiple domains at the same time – and usually does. Playing with a simple ring toy is an excellent example of this. Certainly, children develop small-motor skills when playing with ring toys and sorting and stacking, but this is from the cognition domain of emergent mathematical thinking. Skills that lead to mathematical thinking include using spatial awareness and matching and sorting of objects. This is exactly what these activities do. Playing with things like stackers and blocks – it develops both small-motor skills and cognitive skills. And the evidence for this is really, really robust. A recent longitudinal study of more than 12,000 children demonstrated a significant relation between early motor skills and later cognitive achievement, especially in math. Exploring the world physically – this is the first way infants have of learning about shapes and distances and groupings. A child's first experience of a ball is just touching it – or tasting it, as this little girl seems to be doing. But soon, she'll be holding it and then rolling it and then bouncing it. She's learning about how spheres work. And later, in high school, when she's calculating the volume of spheres, she may not remember pressing this ball to her lips, but this is where it all began. These are early math skills. Of course, that's not all. Other things are happening, too.

This is the language and communication domain. And it begins with subdomains that focus on attending and understanding and communicating and speaking. Infants and toddlers are still learning to respond to communication from others and to communicate their own needs and wants. Play gives them opportunities to practice these skills. Playing with puzzles, for example, can provide opportunities for both non-verbal and verbal communication. Words about shapes and fitting together and sorting – it helps set the stage for later math knowledge. But they practice language skills, too. And for children learning more than one language, well, this is an opportunity to practice words in several languages. Communication and cognition skills are best learned in the context in which they will be used. And physical play gives them those contexts. It does just that. It provides experiences during which these other skills naturally arise. And they arise in the context of joyful play. So, learning the skills is intrinsically motivated, which is why the skills are learned better, and studies prove this. In the language domain, studies show that 12-month-olds learn more words readily – and more readily – sorry, they learn more words more readily for objects that interest them. So, allowing children to follow their interests – giving them opportunities to work with puzzles and roll balls and explore the texture of Play-Doh and sand and mud – allowing them to play is also allowing them to maximize their learning. That's what play does. Perhaps this is why the United Nations includes the right to play in their Convention on the Rights of the Child. Yes, the United Nations has declared that every child has the right to play. It is that essential to promoting children's health and development. So, for those of you looking for a seal of approval, you can't do much better than that. Play endorsed by the United Nations.

OK, let's look at an example of gross motor play. The importance of gross motor development is right there in the way that we refer to children in this group that we're talking about – infants and toddlers. There are so many wonderful gross motor milestones in these early years. You know, simply rolling over, sitting up, standing, and balancing, and then cruising, and toddling, and then walking, and running, jumping, and on and on and on. Here, you can see that gross-motor subdomain. It includes learning how to use large muscles for movement and positioning of the body and to explore the environment. One way an educator or parent might help a child with this development is to set up a simple obstacle course with mats or cushions. Older toddlers can even help with the design and the setup of this obstacle course. And this can be done in nearly any setting, whether you're working in a center or helping parents support their children learning at home. This kind of big-body play can help children develop these skills in a safe environment. And they can really take advantage of the playful nature of the activity. The level of difficulty – it can be easily adjusted to include any child, And it can be adjusted individually for different children. Crawling over cushions might be enough of an obstacle, for instance, for one child. Another child might benefit from a course that involves crawling, but then also leaping or jumping or climbing or running. The course can also be repeated so children can get the satisfaction from that sense of mastery. And then we can make small adjustments to the course to add some novelty so the activity, you know, maintains some interest. And, of course, obstacles can be done either indoor or outdoor. This is a flexible, adjustable activity. It is customizable play.

And, as with small motor play, this kind of play can involve practice with shapes and distances and language. And if other children are involved, of course, well, now we have an opportunity to work on some social skills, too. Learning to communicate with other children and build relationships with them is a really important set of skills. And, like language and cognition, it is a skill that develops best in context. This is the "Relationships with Other Children" sub-domain of social and emotional development. Goal number 5 here is "child imitates and engages in play with other children." Play is an especially helpful activity in this domain because it is inherently joyful. So, children are apt to have positive and productive interactions. They're also motivated to work on some of the difficult parts of relationship building because the play is fun, and they want to continue the play. So, they're going to work a little harder on things like taking turns, controlling their emotions while they wait. And those are hard things to learn, but play will help. Playing with other children gives everyone an opportunity to practice other social skills, too, like recognizing and interpreting the emotions of others, expressing care and concern for others. It also gives the adults, importantly, an opportunity to model these things. It's another great way that children learn these skills from the adults, who are there during the play and modeling them. The American Academy of Pediatrics has asserted that early learning and play are fundamentally social activities. It's true. And that quote comes from an AAP report that recommends pediatric providers write prescriptions for play. I love that – prescriptions for play. It is that important and that effective at promoting both health and development across learning domains.

OK, let's look at the last learning domain – approaches to learning. This is the domain that captures children's growing ability to manage their actions and behaviors. It includes things like the ability to exercise curiosity and creativity. Infants and toddlers are just naturally curious and creative, and this often comes out during physical play, because children this young – they are not constrained by expectations of previous experiences. You know, an infant who encounters a new toy – a rattle, say – doesn't know how it's supposed to work, and so, she may explore it in any number of ways. She may taste it or smell it. She may try to eat with it. This kind of natural curiosity and exploration is one reason many early childhood researchers – they think of children as little scientists. I love that. They do these little experiments, and this kind of exploration – they're doing it all the time, and that is play. And this is probably a good time to remind ourselves that one effective practice is simply this. As much as you can, let children play as they like. Adults have a tendency to think that there are right and wrong ways of using objects. It's true of, you know, most of the objects in our lives, we're supposed to use them in a very particular way. Maybe not. We become accustomed to the idea of using them in just one way and only one way. But with children, you know, we need to refrain from imposing those kinds of rules on them. So long as they're being safe, if the child is playfully engrossed in using an object or performing an activity, you know, they're probably learning, too. And it's OK that they're using it in a non-standard way. It may not always be obvious what the learning is that's going on. The child mouthing this orange octopus rattle may be exploring texture, for example. Now, if you pull the rattle out of the mouth to show her how to shake it, well, you're interrupting the scientist. It's probably better – again, so long as it's safe and so long as she's engrossed in the activity – to let her get on with her experiment. She will discover the sound that it can make, eventually, and when she does, it will be her discovery, which is much more fun. This is, of course, not to say that you should never prompt a child to play in a different way. That can be really helpful at times, certainly. I'm just trying to make the point that play is naturally creative. We don't want to get in the way of that natural exploration or that creativity.

Play, by the way, is messy, too, and it can often require adults to be as flexible and creative as the children in their care. Sometimes, we set up an activity only to have children take it in a different direction. And so, we have to decide, do we pivot and allow the children to go in a new direction or do we try and refocus the children on what we originally intended? And usually – kind of unhelpfully – but usually, the answer is, well, it depends. We have to use our judgment. For example, this little girl's teacher set up an obstacle course where children were supposed to step from one dot to another and then jump into rings. Well, this toddler decided that she wanted to wear the ring like a crown and dance around with it. Should she be allowed to do that? Well, if other children are being disruptive, we probably want to intervene and help the toddler do the activity as we intended it. And this is part of what play can help children learn, right? How to manage their behavior and work with other children and follow rules. If, however, it isn't bothering other children, we may want to consider allowing the child to take the play into this new direction. The child may be indicating that, you know, she prefers to engage in some imaginary play right now, and that would be really productive for her. Moreover, dancing may be a way that she makes herself happy. It may be her way of managing and ruling over her own emotions, getting control of her emotions. And she is still practicing, by the way, the gross motor skills that the other children are doing while they're completing the

obstacle course. So, it's not the learning that the adult intended, but it is probably still productive, and so we want to consider letting her continue with it. And who knows? Maybe she will inspire some of the other children to engage in her type of play – her type of learning.

Let's look at an example of the kind of pivot that I'm talking about. I'm gonna show you a video of a toddler playing with a ring toy. The toddler's teacher has noticed that the child is more interested in his own body at the moment. Now, learning about shapes is important, so should she try to redirect his attention at this point or allow him to continue playing in his own way? Watch how she pivots.

[Video begins]

[Children talking in the background]

Teacher 1: Where does the circle go? The circle goes inside the rectangle or inside the circle?

Teacher 2: Are you gonna put it – OK. Straighten your foot out, like this. This one. Like that.

Teacher 1: No? You don't want to put it in there? OK. You put the little circle in the big circle.

[Video ends]

Dawson: Oh, I love that example. You can learn about how shapes fit together by playing with a stacker, of course, but, as we just saw, you can also use your leg, too. You can use the traditional leg stacker. This shows just how pivoting can be really effective at keeping a child focused, but it also shows that pivoting doesn't need to be fancy. I mean, amidst all that chaos, it probably can be fancy, but it works. Sometimes, a really simple adjustment is all that's needed. OK.

We have talked about the learning that happens during physical play. Now, let's discuss some methods we can use to create effective play environments and activities. We can start with three methods that we've already talked about: offering effective guidance during play – scaffolding the play – attending to the child's preferences and offering choice during play, and being willing to pivot during play to capture unexpected but effective learning opportunities. These are three great techniques, and they all fell under the first and most important thing we can do to create an effective play environment. The single most important thing we can do is to populate it with a sensitive and responsive adult. Adults are the most important part of the learning environment, and this is especially true during play. The Cambridge Handbook of Play puts it this way: Effective play for infants and toddlers requires “creative, respectful, and sensitive interactions between teachers and children. Teachers know that while they cannot plan play beforehand, they can take an open, flexible, and playful attitude.” This describes exactly what we have been talking about. Adults who work with infants and toddlers need to be open, flexible, and playful, able to offer different choices for play, scaffold learning during play, and pivot when necessary. This attentive adult is the most important part of the play environment.



And the attentiveness is key. A recent study reinforced this point when they investigated how 96 12-month-olds played in different situations. The children were brought into a laboratory play space one at a time and allowed to play in the presence of a familiar adult. Sometimes, the adult was told to be attentive to the child. Now, they didn't encourage the child to play. They didn't direct their play. They simply attended to what the child was doing. Other times, the adult read a magazine, and the magazine was positioned so that the child could not see the adult's face. That is, the adult was inattentive. And what happened? In neither situation did the adult encourage or discourage play, but children consistently played more when the adult was attentive. Again, it was not because the adult was helping them play. The adult was not even encouraging them to play. But by simply being attentive, the adult's presence meant that the children played more and explored the space more. Familiar and attentive adults provide infants with a sort of safe base, and that sense of safety allows them to engage in more play. So, again, the most important thing we can do to help infants and toddlers play effectively is to provide them with a sensitive and responsive adult. It is important to emphasize that adults can't plan how a child will play. That's up to the child. But they can plan and realize the conditions for play. So, what are those conditions? Well, in addition to the attentive adult, there is the environment itself, which should be both safe and stimulating.

Let's talk about what makes a safe and stimulating environment for play. Safety is first, of course, and that means things like having good lightning indoors, good containment outdoors, avoiding objects that present choking hazards, edges where falls might occur, having a clean space. Safety practices vary for different kinds of spaces, and they're too numerous to go into here. More detailed safety information is included in the resources handout in the green resources widget. But, here, I just want to remind us all that safety is, of course, paramount, so we should plan play spaces with safety in mind. Not only for the sake of safety, by the way, but also because once spaces are safe, children will learn more because they're more free to explore and play, and the adults are not so concerned and they are able to give more attention, too. Beyond safety, though, we can also create play spaces that are welcoming, comforting, and stimulating. It doesn't have to be fancy. Many times, play spaces are simply designated areas in larger spaces where other activities take place. Designating that area can be really helpful, though. Having a special rug set apart as a play area, for example, can help cue children. You know, "You're leaving the eating area, and you're now entering the play area." And, you know, if space is tight or used for multiple purposes, as it might be in a home environment, you can have a special blanket that you put on the floor when you want to encourage infants and toddlers to play. These signals help children distinguish between the different kinds of activities and know when play is appropriate. As much as possible, it's good to have an area that is free from outside distractions, too. Infants and toddlers are still learning how to focus their attention and minimizing distractions can really help them. Having an area that is orderly can help minimize distractions, too. If a play area is too crowded, a child might feel overwhelmed, or he might not know what to focus on. An orderly play area, with a few well-presented objects, is inviting, and it allows a child to see when new things are available.

You may notice that I am identifying elements rather than describing specific play environments, and I'm doing this this way because play environments are so diverse. Children

are going to play inside and outside and in different kinds of care environments, including homes, centers. Moreover, you know, play itself varies by family. And play environments will need to vary accordingly. For example, some families tend to enjoy messy play. They like finger painting and mud pies, and they don't mind when the bathroom floor just becomes an entire lake. Other families prefer neater play. They tend to have neat shelves with puzzles and pull toys that are carefully returned to their places when the play is done. Both styles of play are fine, and both can work well to harness the power of play for a child's learning and development. Play is flexible that way, which is one of its great strengths. You know, there are a great many ways to do it well, and it is impossible to describe some ideal play environment. There just isn't one. And since we're speaking of different styles of play, let's remember that play varies by culture, too. Different cultures have different styles of play, different play objects, different play activities, environments in which play takes place. It can be really effective to work with families to identify play materials and activities that are significant to them, and this is especially true for children who are learning more than one language. Seeing familiar play materials and hearing familiar words can be really comforting and help a child, you know, relax into the play.

Alright, let's talk about our last element – play materials and activities. First, you want to choose developmentally appropriate materials and activities. That means age-appropriate, but also individually appropriate for the children you are working with. Children develop at different speeds and reach milestones at different times. So, make sure you're choosing materials or activities that aren't – make sure that you're not, sorry, choosing materials and activities that are simply labeled as appropriate for the age of the children that you happen to be working with. All children, including those with disabilities and suspected delays, benefit when they're able to make progress with an activities or effectively engage with an object. No one likes to be given a task that seems impossible. Watch how your children play. Pay attention to their abilities and what interests them and choose objects and activities accordingly. Now, variety is the spice of life, as they say, and they're right to say it. Research shows that providing children with novel experiences, as we do when we give them opportunities to play with different materials and engage in new activities – this enhances learning.

Now, we have already cautioned that we don't want to overwhelm a child with too many options. And we said that a clean, organized space encourages play. So, an effective practice here can be to rotate objects, so the child always has a few options, but so that the options change from time to time. You don't need to stick to a particular rotation schedule, but variety, over time, will keep the play interesting for children. Now, one way to make sure that you give children a variety of activities over time is to think about categories of play. We all get in ruts, and it can happen that you are offering, say, lots of small motor activities, but not so many gross motor play activities. This may be a product of your care environment. Perhaps you don't have a lot of space, and it's just easier to arrange small motor play. So, you rotate between blocks and puzzles, sensory bins, and dolls. And there's nothing wrong with these activities, and they do provide variety. But thinking about the categories of the activities you do can help you create more variety. Once you've noticed that all your play activities involve small motor play, for example, now you can intentionally add in some variety simply by choosing an activity from

a different category. Gross motor activities could include things like tummy time, for instance, for infants, setting up a mobile so that they can practice their big reaches. For toddlers, it could be simple obstacle courses. We've already discussed those. But they can also just be dancing or full-body imitation games, like "Simon Says" or "Follow the Leader." You can make up your own.

Categorizing the play that you do can be a great tool for mixing things up. If you do find that you're playing with toys a lot, consider doing an activity instead. If you do a lot of indoor play, consider taking things outside. If you do a lot of games, consider trying some imaginative play with dolls or puppets or make believe. The point is to offer a variety of play to keep children active and interested. Of course, as good as variety is, familiarity has its place, too. Not all play needs to be new and different. Exploring a new object or engaging in a new activity can be stimulating and fun but playing with something that you are already familiar with provides advantages, too. Feeling competent or even expert at something is a good feeling. And children enjoy that feeling, too. So, playing with a familiar object or doing a familiar activity is not something to be discouraged. We want a mix of the familiar and the new.

OK, that's about all the time we have for today. I hope I've been able to impress upon you just how much infants and toddlers benefit from play. Play is universal for a reason. It is really – really effective learning. It is a natural engine for learning, and we can harness it to help children learn across domains. When we prepare diverse materials and activities for play and then conscientiously work with infants and toddlers as they play, we are helping children grow and learn and thrive. Oh, and we're helping them have a good time as they do it, and that seems like a pretty good deal, if you ask me. If you are interested in learning more about playful environments for infants and toddlers, there are a great many resources available through the Early Childhood Learning and Knowledge Center, the ECLKC, website. I put together a handout for this presentation that will point you towards this and other resources that are especially good for this topic. You can find that in the "Resources" list, which is in that green widget on your screen.

Thank you so much for being here today. Oh, by the way, up next in the "BabyTalks" series, we will be discussing the science behind social and emotional development. It's gonna be a good one, and it comes up in July, so don't miss that one.