

## **Responsive Caregiving as an Effective Practice to Support Children's Social and Emotional Development**

Sarah Lytle: Good afternoon, everyone, and welcome to Baby Talk. We're so pleased to have you join us today. Baby Talk is a series of webinars for teachers, providers, and home visitors working with infants and toddlers serving Head Start, Early Head Start, and Childcare programs. These webinars will introduce you to some of the research behind the Head Start Early Learning Outcome Framework, or the ELOF. I'm Sarah Lytle from the National Center for Early Child Development Teaching and Learning. My colleagues and I are from ILABS, the Institute for Learning and Brain Sciences and we will be presenting these webinars. ILABS is a partner organization from the DTL Consortium and it's one of the leading infant research centers in the country. Before we begin, I'd like to go over some information regarding the webinar. We will be using some of the Adobe Connect features to help us interact. At times we will ask you to type in the chat box, located to the right of the PowerPoint slides in response to specific questions. We would also like to point out the Q&A box on the lower right, if at any time you have questions related to the presentation or other related topics, please type your question there.

We will be monitoring that box throughout the webinar. Supporting documents for this webinar, including the PDF of the presentation can be found in the supporting documents box in the bottom right of your screen. If for any reason you get disconnected from the webinar, please use the same link you used previously to rejoin the webinar. We want to let you know that the session will be recorded, it will be posted on the ECLKC. Finally, following the webinar you will see a link to an evaluation form, we request that you complete the evaluation as we use this information for improving our webinar presentations and our planning for future webinars. Upon completion of the evaluation, you can download a certificate of completion for your participation in the webinar. If you are viewing the webinar with colleagues on one computer, and only one person is registered for the webinar, please forward the link to your colleagues who also viewed the webinar so they can complete the evaluation and receive their own certificate of completion.

Without further ado, I'd like to introduce you to Marley Jarvis, who will be presenting today, on Responsive Caregiving as an Effective Practice to Support Children's Social and Emotional Development. Marley Jarvis: Hey everybody, this is Marley Jarvis, thanks so much for joining us today. We're going to be talking about an effective teaching practice called Responsive Caregiving. So Responsive Caregiving refers to a parenting, caregiving, and teaching practice that is nurturing and responsive to an individual child's temperament and needs. Responsive caregiving builds on social back and forth interactions with a child that fosters trust and emotional security and helps support a child's engagement, learning and other positive outcomes that persist into adulthood. So after this webinar, you will be able to identify the strategies that children use to connect with other people and learn about their world in the first years of life. Summarize the importance of healthy and supportive early relationships and responsive caregiving. And also describe at least three research-based components of high-quality interactions with children.

So in this webinar we're going to cover the latest research on responsive caregiving as an effective practice in supporting young children's social and emotional development. Today we will, one -- review research on the social component of children's early learning, as this really sets the foundation for understanding why responsive caregiving is an effective teaching practice. Two -- we will discuss the importance of responsive back and forth interactions as key to early learning. Three -- then we'll take a deeper look at some of the characteristics of responsive caregiving as an effective teaching practice. Throughout the webinar we will discuss strategies for supporting high-quality interactions with young children and applying that research to your practice. So feel free at any time to share out any tips from your own experience in the chat box.

Okay, so to get us started, I wanted to first talk about a discussion of what responsive caregiving means to you. So we're going to use the chat box here. So when have you used or seen responsive caregiving in practice? So again, share out in the chat box when have you used or seen responsive caregiving in practice? Okay, so Kristen says that she's seen responsive caregiving in practice while coaching. It looks like a lot of other people are typing. We've seen responsive caregiving during home visits. Ellen, responding to my own children and those in the classroom. Between home visits and the classroom, providing TNTA to infant and toddler teachers. Visiting the classroom. Greeting times when parents are leaving. Some great suggestions here. So I think people are very familiar, I feel like they've seen responsive caregiving a lot during their practice. Wonderful, awesome. So, to continue on building this foundation of an introduction to responsive caregiving, before we dive into the research. Responsive caregiving refers to a parenting, caregiving, and an effective teaching practice. So, again, that is nurturing and responsive to each individual child's temperament and needs. Responsive caregiving builds on social, responsive back and forth interactions with a child. Responsive caregiving fosters trust and emotional security and it also supports a child's engagement, learning and other positive health and academic outcomes that can persist into adulthood.

Responsive caregiving lets you get to know each individual child, including their strengths and their challenges and this familiarity with the child allows you to really customize your interactions accordingly, which is important for supporting development for all children. This can also help dual-language learners as you support them in their language learning, along with all other aspects of development. Additionally, responsive caregiving allows you to observe and customize your interactions with children with suspected or identified disabilities or delays as you learn how to support them according to their individual needs. The knowledge of children's individual needs and preferences that come from responsive caregiving also helps educators adapt classroom and home activities for children of all abilities and languages. Home visitors can also help caregivers build their observation skills, to pay attention to small cues their child might be giving. It's also important to note that you can learn a lot about individual children's varied cultures and abilities through interactions with the children's parents, caregivers, and other family members. These interactions can help

guide your interactions with the child in a way that's responsive to their individual needs according to home language and culture.

So several things are really essential to responsive caregiving as an effective teaching practice. The first, young children learn through social, responsive back and forth interactions with other people. The second, is that each child has unique needs and preferences. Caregivers and teachers can, with attention and reflective practice, be responsive to and build upon each individual child's pattern of development and learning. And three because of the social and relationship based nature of young children's learning and brain development, responsive caregiving supports the foundation for most other learning in young children. So, I'm going to start with this first point, for young children learning happens in relationships. I'm going to give an overview of some of the research on how young children learn through social interactions, because again, this really is the core of responsive caregiving as an effective teaching practice.

So, again, responsive caregiving as a parenting or teaching practice builds a strong relationship between caregiver and child and is essential support for social-emotional development. Social-emotional development is important in children's self-regulation, academic success, and healthy cognitive development. It is both the foundation and vehicle for learning. So why is that? Brain development during these first years of life depend on strong social relationships with the primary caregiver. Over time, this yields positive outcomes for the child that persists into adulthood. Building a strong relationship with at least one responsive, consistent adult caregiver in their lives is essential for building not only successful emotional and social skills, but also the foundation for cognition, problem-solving, resilience and learning throughout life. Strong relationships early on also build resilience to stress later on. Continuing with outcomes of responsive caregiving, healthy early relationships have been linked to later life outcomes like what children expect of relationships with others. How confident they are in social settings, and how motivated they are in scholastic achievement.

So for example, how long they will persist at a challenging task, or their likelihood of completing high school or even attending college. The key to building these positive outcomes is trust and responsive caregiving early on and consistently. These relationships can be with one or several adults either at home with a primary caregiver or also with a teacher, childcare provider, or other education staff. Children benefit from multiple strong relationships, but even just one has enormously positive outcomes for the child. I'm now going to move into talking about some of the research on the social interactions that help children build these important relationships with adults. Over the first few months of life, a baby's preference for familiar people develops into intimate relationships. These relationships are a vital part of any person's life. Scientists believe that close bonds developed early in human history. These bonds can improve infants' chance of survival, which makes sense. And babies with close bonds might be safer. Infants and parents or caregivers who develop close relationships are more likely to remain physically close with one another, which increases the chances for the adult to protect the child. So think a bit about the behaviors that infants are born with. So they cry, and they fuss and this tends to draw attention from adults. So these

behaviors are a way that babies communicate their needs to familiar adults, and this ability to communicate is an important developmental step. Because of this, it's an indicator of children's ability to develop emotional behavioral self-regulation in the Head Start Early Learnings Outcomes Framework, or ELOF.

Children are learning to use adults as a resource to meet their needs. Their behaviors often cue adults to have an emotional response, it also provokes a desire to provide warmth and support. This care protects infants from danger. Over time, the infant-adult relationship develops into a strong bond or relationship and can happen with multiple adults in the child's life, like parents, teachers, grandparents, or other loved ones. These bonds form when a child has a consistent and nurturing relationship with the responsive adult over time. Each relationship is different. Children come to depend on these relationships, not only for protection, but also for emotional and social support. Strong bonds with at least one responsive caregiver are particularly important in child development. And these bonds are essential for learning. Babies are born social and ready to interact. Children form social bonds very early on, it's kind of what humans do. Humans are fundamentally social beings, we delight in each other's company, we live in groups, and we thrive on interaction. So it's no surprise that babies show social tendencies at an extremely young age. In fact, infants are drawn to social interaction right out of the womb.

In a classic study, Institute for Learning and Brain Science, ILABS research Andrew Melzoff and Keith Moore went into hospitals and made faces at newborn babies, they used three expressions -- sticking out their tongue, opening their mouth, and pursing their lips. So while babies don't yet have a lot of control over their faces, they're able to make these three expressions. More often than not, babies imitated the experimenter's facial expressions, so they made the same face back at the experimenter. The youngest of these babies was only 13 hours old. So from birth, we are already attuned to other people, we pick up on their social cues and you can see this affinity for other people throughout the social-emotional domain of the ELOF. Not only do newborns imitate facial expressions of adults in person, but they're also attracted to faces, or even things that only vaguely resemble faces, like what you're seeing here. So take a look at these two images, they're essentially the same, they both have three squares, and a round green shape. So, but which one looks more like a face? A or B? And most people tend to say B, because those three squares are arranged in kind of a more face-like way.

So those two squares on top, those could be eyes, the square on the bottom could be a mouth. But in the other one, in A, that sort of flipped. And it turns out if you show babies these two images they spend more time looking at B. They may not understand what they're looking at, but they prefer to look at something that has features similar to a human face. This is yet another early indication that babies are born social creatures. Babies are even attracted to things that only vaguely resemble human faces. And there's a good reason that babies imitate and prefer to look at human faces from a very early age. Young children don't just like faces, but they learn through these social interactions with people. So let's explore some

research about how children learn from these social cues and interactions. I'll start with something we call sharing attention.

From a very young age, children are attuned to a big part of social learning, the eyes. Eyes are the basis for watching others and imitating, they show you where another person is looking and directing their attention. By about 10 months, children are starting to understand that looking at another person's eyes can give a lot of valuable information. In this study, Rochelle Brooks, a researcher, sits at a table across from an infant. There's a toy on either side of her. The toys are identical. First she establishes eye contact with the child. Then she turns her head to look at one of these toys. And what does the baby do? He turns his head to look at the same one. Because the toys are identical, we know that we're measuring whether the baby is looking where the experimenter is looking, not whether he thinks that one of these toys is more interesting than the other. Babies are also beginning to understand that when the experimenter looks at the toys their eyes are important. So nine-month olds, follow an experimenters head turn when their eyes are open and when they are closed. But after 10 months, children are more likely to follow the experimenters gaze only if the experimenter's eyes are open.

Sharing attention happens through eye gaze and gestures, this allows for a child to coordinate their attention to objects in their environment with an adult. This is a powerful way for infants to learn and form social connections before they're able to talk. These non-verbal forms of communication can be helpful for supporting language development also in dual-language learners. Being attuned to eye gaze as an early social cue helps children learn. In this study researchers followed children for more than a year to study their relationship between vocabulary and social cues, like pointing and gaze following. When children were 10 to 11 months old they came into the lab and watched an experimenter look at a toy. Researchers recorded how long children spent looking at the toy after the experimenter turned to look at it. They also noted whether or not children pointed at the toy. Then they followed up with children at various time points for roughly a year afterwards. At these time points they collected measures of the child's productive vocabulary, or the number of words they say. This graph shows the vocabulary growth of children over time based on their gaze and point following at 10 to 11 months. If you look at the left side of the graph, the vertical axis, it shows children's vocabulary size, and at the bottom of the graph, the horizontal axis, you'll see children's ages over time. In the center of the graph you'll see five lines, first the dashed black line is the average child's vocabulary for all children, not just children that were in the study. The other four lines represent children who were in the study.

The green line on the bottom were kids who did not point and only looked for a short amount of time at the object that the experimenter looked at. You can see that although their vocabulary begins at the same level as the other groups, at two years old, their vocabulary is smaller than average. On average, kids in that group knew roughly 250 words. The blue and red lines show children who either looked longer than those represented by the green line, or who spent the same amount of time looking as those in the green line group, but pointed as well as looked. You can see that with these additional social cues, looking longer or adding in

pointing, children's vocabulary now jumps to around 400 words as compared to the green line's 250 words. Along the top of the graph, the yellow line shows children who pointed and spent a long time looking at the object the experimenter looked at, their vocabulary is the biggest among all these groups.

On average these children know over 500 words. It's not necessarily that gaze following or pointing causes bigger vocabularies, but it's clear from this data that they are related in some way, plus children who score low on gaze following and pointing are still learning language, it's just that the children who score high on gaze following and pointing learn language at a faster pace. Babies learn in social interactions with adults. Even strangers such as the researchers from the previous study. However young children can learn even more from adults that they're familiar and comfortable with. Research shows that babies prefer specific individual people that they have a lot of experience with, for instance they have a strong preference for their mother's features. One study found that newborns prefer looking at their mother's faces. Another found that they prefer to listen to their mother's voice over a stranger's, they even prefer hearing the language their mother speaks over a foreign language. This familiarity actually helps children learn.

Newborn babies process their mother's speech sounds differently than they process stranger's voices. When babies listen to their mother, areas of their brain related to language are activated, but this does not occur when they're listening to a stranger. Babies tend to look for info from their mother or primary caregiver, but also prefer a familiar caregiver or teacher. Familiarity with the adult affects the social relationship with that adult, and therefore the child's learning from that adult. Since babies prefer to look and listen to familiar adults, familiarity increases the number of interactions and opportunities for learning, as well. What this means for teachers, education staff, and caregivers is that continuity of care really matters for establishing strong social bonds between adult and child that enhances and supports learning. Let's review some things that you can do to use this research in your practice. Use face-to-face social cues as a guide. As a toddler or infant it's about like being a tourist in a foreign country where you don't speak the language well. Every sound is unfamiliar for you and you're constantly trying to figure out what everybody is talking about. To do that social cues can really help a lot.

Pointing and eye gaze can direct attention to specific things, helping you narrow in on what a person is talking about and to tune out what a person is not talking about. This is one of the reasons face-to-face interaction is so important. Spending quality time together means children have more opportunities to share attention with you and look where you're looking. This is a skill you can naturally incorporate into play to help children learn. You can try pointing out objects to a child as you play or labeling the things you see as your walking down a street, a car, a tree, a dog. Home visitors can model eye gaze and pointing for caregivers and help caregivers recognize when their child is attempting to share attention with them, because babies pay attention to faces from infancy, eye gaze and gestures can help a child learn and form social bonds with educators and caregivers before a child can talk. However, sometimes babies need a bit more time to process these cues. Use your eye gaze

strategically, wait for an infant or toddler to catch up so that you can share attention with them. Sometimes babies and infants need a bit more time to slowly focus on what you're trying to show them. For example, if you're trying to show them a flower, wait until the baby is actually looking at the flower and you are sharing attention before talking about and labeling the flower.

During home visits pay attention to when parents might label something prematurely and help support them in recognizing when their child is actually sharing attention. For example, you might notice a parent holding out a toy duck to their baby while saying, "Look at the ducky," while the child is still focusing on a different toy. Waiting for the child to actually look at the duck before talking about it helps build vocabulary and language skills. This kind of attention sharing is very helpful for supporting language development in dual-language learners. As we have just talked about, babies learn through social face-to-face interactions with the people around them. Because of this, responsive back and forth interactions are key to learning. Research tells us that people, not fancy or expensive toys, are the key to children's early development. And when I say people, I mean responsive, nurturing adults. There's really no substitute for human interaction. Let's explore some research that indicates that young children learn best during fact-to-face interactions.

How do we know that babies learn best from interactions with people? I'll give you an example from the research. In this study researchers looked at how babies learned the sounds of language. In this case Mandarin Chinese. They brought nine-month old American babies from English only speaking homes into the lab. Some of these babies attended in-person language learning sessions with a native Mandarin Chinese speaker as shown in the last picture. A second group of babies watched the same content on a DVD recording of the session. And then a third group of babies got to listen to just the audio, but didn't see the video of the recordings of these sessions.

So all of the babies are exposed to the same language, but different babies heard these language sounds in different ways, either in person, through a video, or the audio. Researchers compared the Mandarin Chinese skills of the English language learning, American babies with Chinese Mandarin learning babies over in Taiwan. Let's take a look at some of the data. On the bottom of the graph you can see how old the babies were when they were brought into the lab. The babies in the study were tested when they were six- to eight-month-olds, shown on the left side, and again a few months later when they were 10 to 12 month old, shown on the right side. The blue line with the circles represents data collected from Taiwanese Mandarin learning infants. The black line with the squares represents data collected from Seattle English leaning babies. On the left side of the graph is the measurements of the infant's ability to tell Mandarin sounds apart, so the higher this score, the better the babies ability to tell apart these language sounds.

In other words, the high score indicates that a baby's brain is able to hear differences between language sounds. Amazingly babies are born able to distinguish sounds from all of the languages of the world, this is how babies are born able to learn their home language. You'll

notice at six- to eight-months old, both Taiwanese babies and the Seattle babies were equally able to tell the Mandarin sounds apart, even though the Seattle babies were not actually learning Mandarin at home. Babies start to specialize in their home language in about 10 to 12 months. So by the time they're 12 months Taiwanese babies are getting better at speaking Mandarin, and English learning babies in English only households are starting to lose their ability to discriminate the Mandarin sounds because they've started to specialize in English. This is the typically language learning pattern, it's what happens when children are naturally exposed only to their home language, But what happens when the English learning Seattle babies were exposed to Mandarin Chinese from a native speaker in the study?

What the researchers found is that the American babies exposed to Mandarin in these live language learning sessions were just as good at telling the difference between Mandarin sounds as the babies raised in Taiwan. Babies are remarkable at learning languages. However, what was really interesting for our purposes today in reflecting on responsive caregiving was what they found out about the other two groups of babies, these are the babies that either watched the DVD of these Mandarin language sessions, or just listened to the audio recording. So in total contrast with the babies that got the live in-person language sessions, the babies that just heard an audio recording of the play session showed no evidence of learning the sounds in Mandarin Chinese. So what do you think happened with the babies that saw the recorded video of the language session? You can go ahead and type your thoughts into the chat box. So, again, using the chat box, the question is what do you think happened with the babies that saw the recorded video of the language session? Do you think that they were able to hear the difference between Mandarin Chinese sounds by the end of the study?

Sarah: All right, so, Patrick predicts that they lose interest. Elizabeth says no. Lots of other people are typing right now. Another no, a couple more no's. Rachel says a little more than only audio. Somebody says a little bit in-between. And then lots of no's, one yes. So, I think you can make the big reveal, Marley.

Marley: All right, you guys ready? So, interestingly, and perhaps surprisingly, even those babies that watched the DVD session, didn't show any evidence of language learning. So this tells us that language learning really depends on the social component. Babies learn foreign sounds from the live interaction, but they didn't learn the sounds from watching a video. This emphasizes that for infants, social interaction must be with a live in-person adult for learning to occur. You are helping all babies, including dual-language learners in their language development through social back-and-forth interactions. We also know that within these interactions with a live person, babies learn best if the interactions are back and forth. For example, research has shown that if adults respond to an infant's coos and babble's babies show even more learning.

Responding to baby's babbling can help support their language development and even lead to larger vocabularies over times. In a recent study, researchers Michael Goldstein and Jennifer Schwade instructed caregivers to either, A -- respond to their 9½-month old infants, right after



their babies made a sound or did an action, or B -- to respond to their babies randomly, regardless of what the baby was doing at the time. So what do you think happened? So they found that when caregivers gave infants contingent feedback, so responded immediately to infant's sounds or actions with full sentence replies, babies changed their babbling to include sound patterns used by their caregivers, even if they aren't speaking yet, replying to a baby's babble lets them know that you heard them and you understood that they're trying to say something. So you're encouraging them in the conversation that they're eager to be a part of. This research finding emphasizes that for learning the live interactions of people should also be back and forth and contingent on the baby's actions and sounds. So why is this? One possibility is that face-to-face interactions allow for turn taking, adults can respond in real time to what the child is doing or saying, they might look where a child is looking or label a new object.

But when a child watches a video for example, the person on the screen cannot react to the child's behavior or provide the same social cues that a live person can. If this baby is talked at, in a one-way manner rather than in a contingent back-and-forth way, the adult does not react to the child's specific behavior. In addition, responding in a way that is contingent allows the adult responses to be relevant to the child, which enhances learning. This personalization can happen in person with the responsive adult, but not from a video. Responding contingently to a baby's babbles is a great way to support dual-language learners in their language development, as well. Home visitors can pay attention to opportunities for back-and-forth babbling between parents and their babies and encourage parents to respond contingently. If a parent seems like they're a little hesitant or maybe they feel silly talking to their baby before the baby's talking back, you can let them know some of this research and that research shows that responding immediately to their baby's babbles actually helps build their baby's language skills.

Any time that can be devoted to one-on-one interactions with children is valuable. During home visits, you can encourage parents to look for every day moments, so things such as diaper changes, or riding on the bus or car, that can be used as one-on-one contingent interactions. One goal in the Early Learning Outcomes Framework for language and communication is attending, understanding, and responding to language from others. From zero to eight months, children should participate in back-and-forth interactions, exchanging facial expressions and language sounds with familiar adults. By 9 to 18 months, children should begin to understand the meaning of familiar caregivers verbal and non-verbal communication and respond with facial expressions, gestures, words, or actions. To summarize, young children are attuned to what's going on around them. They notice the type of speech we use, where we're looking, what our actions are, and whether we respond to their behaviors.

As children grow, responsive adults can nurture learning through everyday interactions. This and other research tells us that learning happens best really in the context of relationships, and not just the relationships that children have with their primary caregivers. The relationships children have with their teachers, teaching assistants, home visitors, childcare

providers, and other educational staff are fundamental to their learning. Children are learning from the interactions that they have with us all day, every day. Through relationships with children, educators are providing an environment where they can learn and thrive in the company of a trusted adult.

Not only do children pay special attention to the things that they learn through interactions with trusted adults in their lives, but these relationships also help them feel secure and confident, this is central to responsive caregiving as an effective teaching practice. Individual interactions are not always possible in a busy classroom, but you can still be responsive to children's needs, pay attention to children's behavior during group time, which children need extra help sitting still, for example, or who needs extra encouragement to join group work. You can identify opportunities to scaffold children's learning. And again, any time that can be devoted to one-on-one interactions with children is valuable.

When time and resources are limited, remember that contingent interactions can happen in any situation, even in large group settings. Social interactions in the context of relationships are really the core of responsive caregiving as an effective teaching practice. Responsive caregiving is founded on strong bonds and relationships between a child and caregiver, teacher or other consistent adult in their lives. We have just explored some of the research about how young children learn through social responsive back-and-forth interactions with caregivers, parents, teachers, education staff, and other adults. In this next section we're going to continue to explore characteristics of responsive caregiving. In your experience are two children really ever the same? So as you know, there's an enormous amount of variability in preferences and needs from child to child.

Each child is born with its own set of traits, temperament, and this affects how they interact with the world around them. So for example, parents might describe one child as easily upset and liking quiet activities or to be held and cuddled, while another child might be described as "a happy camper who rarely gets upset, is active and doesn't like to sit still." So temperament shapes how children experience everyday events and challenges. One of the essential components of responsive caregiving as an effective teaching practice is that each child has unique needs and preferences. Children and teachers can, with attention and reflective practice be responsive to and build upon each individual child's pattern of development and learning. Although we can't know exactly what's happening all the time, and we should definitely be aware of assumptions we might be making, it can be really helpful to practice being observant and making guesses about what children need based on their cues. So for example, looking at this photo, how might the children in this photo differ in terms of their temperament or maybe their preferences or needs?

How might these caregivers be responding and accommodating to those needs? So, as an example, in the foreground, the child in the purple pants maybe needs a little extra support in regulating physical contact with other children. Take a look at the other child, the child in the striped pants, seems kind of unfazed by having his t-shirt grabbed, but if you look in the background the girl in the pink, she seems a bit unsure or worried. It's possible that these two

children differ in temperament. So think about what else you might see here, and also what could the adults do in response to these varied reactions? And again although we can guess quite a bit about what these children are feeling and may need in this moment, young children are just beginning to learn how to express themselves and their cues can be difficult to read or interpret. And that's okay. With time, experience and self-reflection caregivers, teachers, and other educational staff can improve in their abilities to read and respond to individual children. So this is one of the reasons that continuity of care is a key component of responsive caregiving. As outlined in the Head Start Program Performance Standards, continuity of care is essential to responsive caregiving as an effective teaching practice.

Caregivers who are attuned to a child's behavior and respond consistently to their needs help the child feel safe and supported. This is important not only during times of stress, but also during play. Staff can be trained in how to watch and respond to these cues, and this is something that can be practiced with the use of photos, videos, and live observations coupled with coaching, and with time for reflection. Home visitors can help primary caregivers identify and respond to these cues, as well. Infants are still learning how to express themselves, so it can be kind of difficult to figure out what they need or want. In addition, cues of children with mental or physical disabilities can sometimes be more challenging to read as a new caregiver. There also might be cultural differences in behaviors and needs, because of these differences sometimes a caregiver might misinterpret or miss an infant's cue. That's okay. The key is for the caregiver to really reflect on their own responsiveness, so if necessary, they can make adjustments to ensure they're providing consistent care.

And this can take time to figure out. This is one of the reasons it's important to have consistency in caregivers for young children, because these cues can be hard to spot, or interpret. Familiar teachers or caregivers may be best equipped to respond to children's needs. Teachers and caregivers who are familiar with a child have likely learned how to read their cues and how to respond. Also, children may feel more comfortable with these familiar adults. Moreover, caregivers who regularly work with the same families may be more familiar with those family's routines. That knowledge can help caregivers work with families to build healthy habits. Those connections take time and effort to build. Continuity and consistency in caregiving can build stronger relationships. In general, a caregiver educated that is familiar with an individual child will be best equipped to read their cues, however, it is always good practice to observe young children and see what you might be able to guess about what they are telling you.

Responsive caregiving is centered on observing each child's unique behaviors and adapting the environment and your behavior in a way that is responsive to what they are telling you with their actions sounds or facial expressions. Let's take a look at some pictures of young children in different scenarios to see what we can guess about what they're feeling or needing in these situations. As a responsive caregiver, you adapt your behavior and environment to meet the needs and temperament of the child. So let's explore what that might look like. So we're going to use the chat box here, and I want you to tell us what you see in this photo. So using the chat box, what cues do you see from the baby? Or what might the adult do in this

photo to adjust to the baby's needs in the moment? So again, using the chat box, please describe what you notice or think might be going on in this photo?

Sarah: So Marilyn is looking at the photo and observes that baby might be scared or worried. Another commented that the baby might be curious, but maybe also hesitant or concerned. Stacey says that the baby looks like she's looking at her hand, maybe there's a bug on it for example. Melissa notes that the adult is fully engaged with the child and is showing nice body language, with some additional comments about the adult's body language here, getting on eye-level, maybe offering emotional support. Somebody, suspects that the baby might be trying to walk and maybe asking for some help. Again, comments that the baby might be wanting some reassurance here. So, it looks like Crystal says that the caregiver is offering safe exploration while the baby is testing new waters, perhaps. So lots of great observations here about what's going on.

Marley: Great, yeah, that's wonderful. So, as many of you guessed, let's say this child's name is Maria. Maria is maybe shy and anxious especially in new situations. She might have a temperament that is slow to warm up. And here she's exploring the yard of a new family childcare environment. So from the photo we can see that she has a furrowed brow, she's leaning back a little bit. And the teacher, Alex, is being sensitive to Maria's response to going outside in a new place. So Alex is allowing her plenty of time and space to take in these new experiences. He's speaking softly to let her know that she is safe and that he is there for her and that she's doing a really great job exploring this new, fun yard. As she's leaning into him, and he has a supportive hand on her, but you'll note that he also hasn't swooped her up off of the ground. So he's still encouraging her to explore, but on her own terms. And this is kind of key here, so if Alex had responded strongly to her uneasiness, so maybe he rushed out at the first sight of her discomfort and picked her up, swooping her up off the ground, she might get the impression that it actually is dangerous out in the yard, that indeed there is something to be afraid of. So think back, remember how effective children are at reading faces and other social cues. So remember that you should be a calm and supportive presence as baby's explore and push their boundaries. So don't just tell them that they are safe, but show them with your facial expressions, body language, and other social cues. Home visitors can help model this for parents by staying calm and nurturing when a child is showing signs of uneasiness and they can also help point out some of the more subtle signs their child might be showing. So let's take a look at a few more photos. So what do you see going on in this photo? So go ahead and use the chat box, what can you guess about what this child is thinking or feeling? So again, in the chat box, based on this photo what do you think is going on? What can you guess about what the child is thinking or feeling?

Sarah: All right, it looks like we got a lot of people typing here. I'm excited to see what people think about this photo.

Marley: I see one, this food is good.

Sarah: Who doesn't love food?

Marley: So, absolutely, this baby looks hungry and ready for food. And how do you know that? And you guys are giving lots of excellent reasons here. So for example, the baby has a relaxed face. The baby's eyes are bright and opened wide. The baby appears to be leaning forward towards the caregiver, and also leaning forward towards that offered food. What's going on with the baby's mouth? You can see it's open. Their eyebrows are even slightly raised.

Sarah: We're getting lots of comments here. I love that people have identified the engagement here of sensory skills, so that's great. And perhaps, you know tasting a new texture, a new food. Again, using senses, looks very comfortable, and very trusting of whoever is giving her this food.

Marley: Wonderful, yeah, there's a lot you can tell from just these small little things. It's great. So, the baby really is using just lots and lots of facial and body cues here to indicate that they're ready for the food that that caregiver is offering. And additional support and attention might be needed for children with suspected or identified disabilities or delays. So for example, if a child cannot lean forward towards the food, is there another behavior that you've noticed that they exhibit when they want more? For example. And again, although it can be very useful to learn to recognize these common signals that many babies exhibit, it's most important to observe each individual child over time and respond according to their own individual patterns. And we're going to take a look at another photo here. So what do you see going on in this photo? So again, using the chat box, why don't you share out what you can guess about what the child is thinking or feeling.

Sarah: So, Edna thinks that this is a nurturing environment. Perhaps a teachable moment about what the doctor will be doing. That the child looks really curious here, maybe slightly concerned but very focused and curious. Perhaps a little bit worried. The child might be giving reassurances from the doctor while he's examining the teddy bear. Both scared and apprehensive, interested, attentive, and curious.

Marley: Great, yeah. I thought she looks pretty engaged with what's going on with that dynamic with the adult there. As she's got her hand on the toy, she's looking at the toy, she appears pretty relaxed. Her eyebrows might be raised a little bit, it looks like she has a slight smile, perhaps. She's leaning forward, both kind of towards the toy and the adult. So, this adult by paying attention to the cues she's giving can really respond accordingly. So, he might be able to follow the child's lead and engage in playing doctor with the stuffed animal, I think one of you even suggested that. He might move that interaction forward based on her interest in checking out the toy's ears, you know she's kind of looking there, checking out the toy's ears. So maybe then the bear can help the doctor check the child's ears. And several of you noticed this, the child appears to be in a really wonderful state for active learning, so she's relaxed and engaged, but not overly excited. She's interested in listening and not overly distracted by her surroundings.

So, although young children simply need extra time and space to reach this relaxed learning state, adults can really help foster this by creating calm, nurturing, and welcoming spaces where children just really feel comfortable. So, flexible, individualized schedules and routines can help children with this, so they provide predictability, allowing children to focus on learning rather than spending a ton of energy thinking about what is going to happen next. So consistent routines and schedules help create a predictable structure in a world that children are already working so hard to figure out. This can be especially helpful for children with suspected identified disabilities or delays. Children typically feel more comfortable and secure when they know what's going to happen next, which is an important aspect of responsive caregiving. The consistency of the pattern of activities within a particular routine is key for creating flexible yet reliable approaches. So for example, you might establish a sleep routine of reading a book prior to sleeping, rather than always worrying about making naptime at exactly the same time every day. Home visitors can look for opportunities to help caregivers build and improve their family routines to support consistency. For example, if a child often struggles with being dressed, you might suggest interactive songs for each piece of clothing. And I was hoping you guys would share out in the chat box, how you or others in your work have incorporated routines in your work with children. So, how has schedules and routines helped young children or families that you work with? So, again, share out in the chat box, if you're willing, and the question was how schedules and routines have helped the young children or families you work with?

Sarah: All right, so we've got a lot of people typing again here. A comment that both people feel more relaxed knowing what will happen next. Routines allow children to begin the process of preparing themselves for what comes next. Stacey says that they have a daily schedule that they review before each activity so that the students always know what to expect. Again, I think this element of expectation is coming through in a lot of these comments from Stacey, from Tammy, from Elizabeth again. Cynthia says that having schedules and routines really help for transitions. And some comments that children just seem to do a lot better when they have a routine, a particularly consistent routine.

Marley: Yeah.

Sarah: Yeah, so a lot of discussion about consistency and that it helps with a lot of expectation setting.

Marley: Yeah, absolutely. And, of course, even when we have routines and consistency, sometimes young children just kind of need a little time to process what they're learning. So sometimes babies just need a break, they're learning from their experiences all the time, they're constantly taking in information and learning about the world that they live in. So what are some of the ways that babies tell you either with sounds or non-verbally when they need a break or are feeling overwhelmed. So using the chat box, again the question is what are some of the signals babies, including those with disabilities give you when they need a break or are feeling overwhelmed?

Sarah: Lots of quick responses here. So, babies might start rubbing their eyes and crying. They show through their facial expressions that they're really needing a break, perhaps they'll cry, they'll turn away, they look away. Patrick notes an increase sucking response. Again, laying down, rubbing their eyes, turning away from the caregiver. Cry or not look interested. You know, Elizabeth says, you know, shutting down. So again the sense that, you know, kids are just going to disengage, whether it's through their body motions or facial expressions.

-Marley: Wonderful. Yeah, you guys listed some really great ones.

Sarah: A lot of great ones.

Marley: Yeah, wonderful So, let's take a look at a picture. So we're doing the same sort of exercise thinking about from the picture what can we guess? What is this baby telling us? So, in this picture, her brow is slightly furrowed, she's looking away from her caregiver, but also holding on to her, so she might be a bit nervous about whatever it is or whomever she's looking at. You'll also notice her hand up to her head, so that's a classic pose that babies and even adults, you can kind of take note of your fellow co-workers and friends. So a classic pose that babies take when they need a bit more time to process what's going on. So sometimes you'll see a hand also to mouth or to chin. She's also pursing her lips, which is another sign that she might be feeling a bit uncomfortable. And as some of you mentioned, if a baby or toddler turns their head away when we are trying to interact with them it could be a signal that they need a break as well. So they need time to make sense of the sights and sounds around them. Other signs might include picking at their shirt, or sort of fussing with their shirt or other clothes. These are the signals that are very common, but also remember that signals that children with disabilities give might be different. So responsive caregiving over time allows you to gain familiarity with each child's specific cues. These cues are often common across many different cultures, but again, pay attention to each child's individual ones. Observing interactions with families can help you learn the cues that each child may have. Home visitors can help parents and caregivers recognize the kinds of cues that their child may be making to signal when they need a break. It's also important to note that not all kinds of stressful situations are necessarily bad. So for example, this child in this picture might be meeting a new grandparent or a new teacher for the first time, and these kinds of mildly stressful situations a child can learn, for example, that this new adult is safe, as long as the child feels supported and that they have access to a nurturing caregiver as in this image. What is key for the caregiver or teacher is to be available and nurturing, but calm.

As we talked about, young children are remarkably good at picking up on faces and other social cues. With access to a calm, warm and responsive adult, young children can more easily move through mildly stressful situations and learn from them. Note that not all stress is equal. So next, we're going to talk a bit more about different kinds of stress and how that can affect children's learning. Researchers typically divide types of stress into three main categories -- mild, tolerable, and toxic stress. Mild stress such as the first day with a new caregiver or a visit to the doctor can be a positive and normal part of development. Although the baby's body experiences signs of stress, so things like elevated heart rate for example, with the help of a

responsive, supportive adult these experiences are important learning moments in a child's development. Many children, however, unfortunately experience more intense stressors such as the loss of a family member, poverty, or a natural disaster. While these are certainly stressful and impactful situations, the stress can be tolerable with a nurturing, supportive, responsive adult either at home or through other supportive adults like teachers and educators.

These responsive relationships help buffer the child from potentially damaging effects of intense stressors. Without this support, stress can become toxic with the potential for lasting negative effects. Toxic stress can occur by experiencing severe and/or chronic stress especially during childhood in the absence of protective, adult relationships. Toxic stress results from strong, frequent and/or prolonged activation of the body's stress-response systems in the absence of the buffering protection of adult support. In other words, toxic stress occurs when a child's natural stress-response systems are constantly on high alert, this can happen when a child experiences ongoing intense stressors such as abuse, neglect, violence, substance abuse by a loved one, or a mental illness or depression in their primary caregiver. The same stressor might be tolerable or toxic depending on the support system that the child has. So for example, while abuse or neglect are both negative events in a child's life they do not necessarily lead to toxic effects on young children if they have a consistent, responsive caregiver to help them. Strong bonds with supportive adults can help buffer against these stressors. Poverty is a risk factor, for example, but it is not poverty exactly that's the problem, but the lessening of the availability of the parent to the child which affects that important brain-building relationship.

For example, maybe by making them depressed, stressed out, having to work all the time, et cetera. For example, research shows that a parent being depressed can result in fewer interactions that encourage strong attachment and social-emotional development such as focal interactions like parentees singing and reading to the child. The unavailability of an adult however, does not always mean that the child will experience toxic stress, particularly if the child has access to another trusted caregiver. For example, many children grow up with a parent that works long hours, but do not show signs of toxic stress if they have at least one other responsive caregiver, teacher, or other stable adult in their lives. Toxic stress is more common in severe and prolonged instances of stress such as ongoing abuse or severe neglect. In these situations, a child's body is on high alert for an extended period of time, this negatively shapes their brain architecture in ways that can persist into adulthood. Fortunately, responsive caregivers, teachers, and other educators can build strong bonds and relationships with children that help build resilience to toxic stress regardless of other stressors in their lives. Responsive caregiving can help ameliorate effects of prior trauma, as well as help buffer potentially negative effects of future stress.

Children who consistently receive love and support from at least one stable adult in their lives starting early on will be more resilient to stressful situations. The more responsive caregiving a child receives, the more resilient they become. Teachers and caregivers can play an important role in children's social and emotional development regardless of the possibility of



other stressors in the child's life. We can build strong bonds and relationships beyond infancy, for example with a future spouse, mentor or teacher. In addition, home visitors can support families in maintaining responsive caregiving routines during difficult times. Responsive caregiving at any stage builds resilience in children, it teaches children strategies with dealing with stress. Responsive caregiving is about noticing the unique needs, temperament, and preferences of each child and responding accordingly. It does not mean that all stress is bad and that you should never encourage a child to push themselves. So how do we help a child explore and push their boundaries in a healthy responsive way? Parents, caregivers, and teachers can encourage children to expand their boundaries by exposing a child to new experiences within their comfort level and temperament.

Encourage young children with loving, nurturing support while introducing age-appropriate demands. The Head Start Early Learning Outcomes Framework, or ELOF, is a great way to become more familiar with age appropriate indicators of what typically developing young children should be able to do and use this to inform your expectations. Remember, back to baby's attention to your face and voice? Use that to help guide them in new potentially scary or stressful situations that are good for the child, such as meeting a new grandparent or the first day of preschool. Be responsive to their concerns, use a reassuring voice to let them know that you are there and that the situation and new people are safe.

Help them understand the situation by talking through their emotions and what is going on, but don't overreact, swoop in, and save them, this will give the false impression that they are in danger, their bodies will be in alert mode and not let them do the learning and growing in this new experience. Allow the children to explore new situations at their own pace with your support in accordance to their individual needs and temperament. And lastly, it's really important to celebrate the work that you do. Responsive caregiving takes a lot of physical and mental energy, practice and self-reflection. It's not expected that a caregiver, parent, or teacher can be 100% responsive all the time. What matters most is that a child has at least one responsive consistent adult in their life that is responsive most of the time. So we're trying to create a pattern of responsiveness. Predictability here is key, the child should be able to rely on and predict the availability of a responsive and familiar caregiver, teacher, or other consistent adult.

Importantly, teachers and other education staff can form strong bonds with children that help build resilience regardless of the possibility of other stressors in a child's life. The more responsive caregiving a child receives, the more resilient and able to explore and learn they become. So in summary, research shows that children's social-emotional skills are strengthened and supported through nurturing loving care and responsive caregiving from parents, caregivers, and teachers. Responsive caregiving is an effective teaching practice that builds trust and strong bonds between adult and child simply through loving and responsive interactions. These relationships improve the child's health and academic outcomes even in less than ideal circumstances in ways that persist into adulthood. Responsive caregiving truly shapes the brain in crucial and positive ways. You'll see next on the resources page there's some resources for you to further explore this topic. And remember that you have access to

this webinar as it's been recorded and the PDF is available to you, so don't worry about jotting all of these down now. Thank you so much for tuning in today.

Sarah: Thank you so much, Marley. And thank you all for listening in and participating in this webinar today. We hope that this information will be valuable to you as you help programs consider ways to enrich the experiences that they provide for children and families. If you have thoughts that you'd like to share about how this relates to your work or questions about any of the content that we covered today, we have just a very short amount of time to open it up to questions and comments in the chat box. And while you do that and while you're typing, here is the link to the important evaluation form for today's webinar. We request that you complete this evaluation and we will use this information to improve our webinar presentations and as planning for future webinars. Upon completion of the evaluation, you can download a certificate of completion for your participation in this webinar. If you're viewing the webinar with colleagues on one computer, and only one person is registered, please forward the link to your colleagues who also viewed the webinar so that they can complete the evaluation and receive a certificate of completion.

Thank you so much. Please keep the comments coming, we'll maybe keep the chat box open for another minute or so. And in case anybody has any questions. But thank you all for attending.