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## The Therapeutic Benefits of Outdoor Play Recorded June 4, 2020

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OccupationalTherapy.com Course #4756

- [Fawn] Today's course is The Therapeutic Benefits Of Outdoor Play. Our presenter today is Angela Hanscom. She is a pediatric occupational therapist and the founder of TimberNook, an internationally recognized program that is found throughout the United States, Canada, United Kingdom and Australia. She's the author of the nonfiction book "Balanced and Barefoot: How Unrestricted Outdoor Play "Makes for Strong, Confident and Capable Children" published by New Harbinger. Angela has been featured on the Children & Nature Network, Huffington Post, MindShift, Babble.com, NPR's Education blog, the DIY Network, The Jerusalem Post, Times of India, Johnson & Johnson TEDx Talks and is a frequent contributor to The Washington Post Answer Sheet. Welcome back Angela, so happy to have you.

- [Angela] All right, so today we're gonna talk about The Therapeutic Benefits Of Outdoor Play. And here's my disclosures. A little bit about me. I'm a pediatric occupational therapists and I am the founder of TimberNook which is, we'll talk about a little bit later and throughout the presentation. It's an international nature-based program. And I'm also the author of "Balanced & Barefoot: "How Unrestricted Outdoor Play Makes "for Strong, Confident, and Capable Children". So the learning outcomes for today is after this course participants will be able to explain why outdoor play is a valuable and irreplaceable occupation for children. Participants will be able to identify at least five therapeutic benefits of outdoor play. Hopefully you'll get a lot more than that. And after this course, participants will be able to recognize the difference between activities and play experiences. And simple tools on how to inspire these in both the school and home settings.

So the first thing we're gonna talk about is how outdoor play is an important occupation. And this is something that really got me down the path of starting this kind of programming. I actually started as occupational therapist in schools. And I also worked in home health with preemies. And a lot of my experience actually was an outpatient therapy clinic before I started taking children out into the woods. And so one

of the things that I was really reflecting on in the very beginning, I started with nature classes of getting parents and children outside and I had a parent come up to me and say, asked me, why did the leaves change color? And I wasn't sure what the answer was. I remember I had to remember from when I was in school and so I said I think it has something to do with a pigment and they'll eat but I'm not sure and I'll get back to you on that. And, but it really, it was humbling but it was also an opportunity for me to really think about what was I doing, you know, outside with children and running nature classes in the beginning.

And what does an occupational therapist have anything to do with that? Because when I started this about 10 years ago, it was really nature program is really run more by environmentalists or naturalists or teachers. So, you know, I kept thinking, what is our place here? And, you know, if you think about it, the occupation of a child is play. It's one of our primary occupations. It's a central domain of childhood. And there's strong evidence of its importance for the health and development and well-being of children. And I kept thinking, you know, we're really good about bringing things indoors. So we have, you know, swing inside, we'll bring in board games, we even bring in little bins of sand inside. But often were found inside and so I kept thinking, what about outdoor play? Why are we not addressing this occupation? And it's something that the more I spent time doing this and spending time over the years watching children in play outdoors and comparing that to what I saw inside it just realized how rich outdoor play was on so many levels and how it affects development and social emotional learning and, you know, even academics, I feel like children learn best through play. And so, I really feel that occupational therapy, you know, that's something that we should really pay attention to and that occupation about your play is so valuable.

The other thing I really started actually recently, thinking about was that an occupation as a choice for all the way through lifespan, right? So it's a choice if we wanna do gardening, gardening is an occupation for some people. And it's meaningful to them

because it's a choice. The same with, you know, knitting or reading, or, you know, any sore occupation for adults. And for children play is a choice. And it's not actually true play. And Peter Gray talks about this a lot. He wrote the book "Free To Learn", that it's not true play unless it's a choice. And he talks about how when it's an adult directed activity and the adult is guiding the activity, that that's actually not play, that's more of an activity. So, and he gives an example too of, you know, even structured sports, they're all you know, those are more adult directed opportunities for children. But true play is when it's child directed and it's a choice if they wanna play or not. It's freely chosen, it's intrinsically motivated and it's self directed, meaningful occupations. And I think that fits really nicely with our profession. Because occupation is a choice and play is a choice. I really believe that we need to pay attention to using more true play opportunities for children as a therapeutic medium for them and really opening the doors for children to have more opportunities for authentic play, not less. So kind of, you know, rethinking a little bit more about, you know, activities in their place but also thinking about true meaningful play opportunities for children. And we'll talk about why as we go on and so you can start to really see it for yourself.

It also is a driver of learning for early childhood settings. And I believe that children are not done playing when they're three and four or five, that they're really not done playing till, you know, actually, we should never stop playing but we are programmed to go all the way through middle school. And there, I believe that children learn best through play because it's so meaningful and those are the opportunities that they remember the most. So we'll give some examples of that later as well. Here's some examples of play at TimberNook. So basically what we do is we work from ages 18 months all the way through about age 14. And we create outdoor play experiences for children. So an example might be children might have the opportunity and again, everything is an opportunity, it's not we're gonna do this right now because it's all play and it's a choice. So we might say something like, you have the opportunity now after watching a puppet show for three little pigs to build out of real bricks and real hay and

sticks, your own homes. And so we'll actually stage the environment like that. So we'll have piles of bricks out there and bales of hay and real sticks piled up and give the children permission to play with it and to build. But that's when the adults step back and so that the children decide how they're gonna build it, and who they're gonna build it with. And some might not do it right away, they might go do something completely different and come back because again, it's all a choice. And we find that works really well with children with sensory issues and with anxiety issues because there's a choice in the matter. And we can talk about that a little bit later as well.

So an example for older children might be they have an opportunity to create a giant ball run in the woods. And so there'll be all kinds of materials out there that they can instruct and work together to build something. So we recently had, as an example, the Merrell shoe company, their design team for shoes came out and they're adults but they still enjoyed this experience. And they were given different parts like giant tubes and gutters and duct tape and different pulley systems and they created their own ball run. And again, it was super meaningful, it was fun, they got competitive, they were really challenging themselves. So that's an example of a play experience. And you often see leaders kind of come forward, you'll see a lot of regulating emotions where, you know, someone might get upset with someone else. So they get to practice all those skills that are kind of hard to replicate in a more traditional setting or if our children are all sitting and doing more book learning or even in the clinic setting when there's just one or two children. So it's really neat to have multiple children different ages out there learning together. So there's all sorts of different play experiences, I think we have at least over 300 different play experiences. And we keep creating new ones all the time.

So the first thing I wanna talk about is how authentic outdoor play is a sensory rich for children in a way that again, is very hard to replicate in a more traditional clinic setting. And then hopefully, by the end of this, you'll all become advocates for outdoor play in a

bigger way. So one thing I wanna talk about before we dive in. I know there's another presentation for continued called The Decline Of Outdoor Play that I've done. And I really highly recommend listening to that one as well because it dives into what's happening with children in the past 30 years. And how because we've overly restricted their movement opportunities and also their opportunity to play outside that we're actually seeing changes in development and so some of the key things that we're seeing over and over and over again, I recommend listening to that presentation 'cause it'll make the connections for you and dive a lot deeper than I'm going to with this presentation.

But one of the main issues is that we're seeing decreased attention with children. So for instance, one teacher said in the early 1980s, she was able to teach a whole classroom as a whole and she said maybe one or two kids had trouble paying attention back then. But now she said on a good day, at least eight of those 26 kids are struggling. Posture is changing. So that's another thing that physical therapists and chiropractors are seeing is that, they're seeing this pre adolescent posturing at an earlier age where there's this rounded curvature and also treating back pain at an earlier age. And there's many reasons for that. One is the children's core strength, their stomach muscles and back muscles are not quite where it should be. And another issue is they're looking at screens a lot, so their head is in this forward position but another important reason to remember is that they're sitting for hours during the daytime. And so, when you're constantly in a seated position, you're going to affect gait and posture as well. Certain muscles will shorten, that probably shouldn't be shortened and certain muscles will lengthen. Increased falling that's another one that we hear over and over from teachers is that kids are literally falling out of their chairs and to the ground. Teachers were reporting that the past 30 years are starting to, in more recent years starting to see kids actually run into each other, much more clumsy, that sort of thing. There's been a rise in anxiety and depression in the past 10, 20 years

especially. I'm really interested to see what's happening now with the pandemic, that, you know, to see what happens with that as well.

And that play is changing. So we saw what recess monitors were saying is that about 30 years ago they saw much more imaginatory type play. And now they're seeing a lot more where kids are playing on and off a play structure or they'll play a more structured game like tag. So, one thing I also want to kind of keep in mind is that we're kind of given a unique opportunity during this time where everyone is, everything has stopped and slowed way down. And in some places in the world, it's become harder for children to access outdoor play but in some instances it's been an open door and we're starting to see more and more families go outside and finding that nature's their respite during this time. And what I'm learning is that this outdoor play with other children is gonna be needed more than ever because a lot of children have been isolated for so much that they're finding mental health is gonna be a priority when they get back and that they're gonna need play with other children but also that they're going to need a safer way forward and so schools are starting to look at you know, is outdoor learning opportunities going to be a creative safe way to reopen schools? So that's something that we've been advocating as well.

I wanna talk in general about how nature is really the ultimate sensory experience. So the first thing that happens is when you step out doors, you have multiple senses that are engaged. So you'll feel wind on the on your face, you're gonna feel the sun beating down on you, it might be raining, it might be snowing. You know, multiple senses are engaged. Another thing is, if you think about the ground, even like when you walk indoors, it's always flat and you really don't have to think about it much. But when you step outdoors the ground is uneven and you're constantly adjusting your muscles and your senses when you step outdoors. So again, multiple senses are engaged. And so your chances for that organization, that sensory integration are gonna be high outside. But another thing to keep in mind is, you know, the ideal state for sensory integration

to happen is to be in a calm but alert state. And again, if you think about what colors you see when you're outside, you often see blues and greens and browns. You know, those are very calming colors. And we know that there's research around that and we'll paint our preschools, those colors, even our prisons, right? And then you go for a massage and you hear what crashing waves, you hear bird sounds, nature sounds, very calming stimuli. There's a reason why doctors say bring your babies outside to calm them. There's actually research certain trees will reduce the smells of certain trees, will reduce the cortisone levels in the brain. So it's a very calming stimuli.

However, you're still alert when you're outside, right? Because, again, the ground is uneven, you need to pay attention. You might see an animal run by, you're constantly assessing your environment. So you're in this combat alert state which is ideal for sensory integration. And we wanna think about what percentage of time our children in an environment like that that's conducive to that integration of the senses? And what percentage of time are they in an environment that is not conducive to that organization. It might even be dysregulated or unorganized. And I often think of environments where, you know, there's a lot of posters on the wall, there might be a lot of noise, there might be a lot of children together in the close quarters and all of that can actually affect that. So again, thinking about the environments that we have children in most of their time and what I'm hearing over the years is that a lot of adults will say, I spent four to six hours on average, this is what I hear over and over, of outdoor play, you know, 30 years ago. When I got home, I was outside to the lights went off. You know, spending hours digging in the dirt, playing with friends outside. And what I'm hearing now is that children often get about 45 minutes to an hour and a half, if they're lucky. That's not always the case of outdoor play a day. And so that's not a lot of time outside in that ideal environment. And the research I think, is 48 minutes.

So I want to talk about the vestibular sense just a little bit and why this is so important and how you know, again, outdoors is ideal for this. So one thing to think about is that because children are constantly in an upright position, most of the time they're sitting in their seats for, you know, sometimes a good six hours a day. Actually, I was sitting in for a research project where an OT student was doing research in the United States specifically and they found that children were sitting on average, nine hours a day was actually more accurate. So that really, that's astounding. That's a lot of time sitting. But yeah, if you think about that, a lot of times kids are being driven to school, so they're in a seated position, they're sitting about six hours a day. Then they're being driven home, then they have homework which can take hours and they're seated upright and this is, again, pre-pandemic. So but you know, constantly in this upright position. But what really needs to happen is children need to move frequently throughout the day. So they need to go upside down, they need to spin in circles, they need to move that head back and forth in vigorous ways and that stimulates, that helps move the fluid in the inner ear which helps stimulate low hair cells and that develops our vestibular system. And that sense is really key as we know to sensory integration and it's really important to know where your body is in space. It helps a child to walk from point A to point B safely, to get on and off playground equipment efficiently. It really helps them to become safer. And often what I'll hear is, I'll go and observe somewhere and I'll hear an adult say don't spin because you're gonna get dizzy. You know, get down from that rock 'cause you're gonna get hurt. And if we constantly say no, stop, don't do that then we become the barrier to that neurological development that needs to happen.

So another thing that vestibular system really is key in doing is supporting all six eye muscles which is really important for reading and writing. And we know that occupational therapists work very closely with behavioral optometrists because perfect vision is not addressed just through reading an eye chart. If you go in their office, you'll see trampolines, you'll see swings just like us. They support the idea that movement does help with visual skills for reading and writing. Another thing that vestibular system

does is it turns the brain on to pay attention. So it turns a reticular activating system on and that's why often kids fidget, right? So they're moving back and forth, they're trying to ignite that vestibular system to turn the brain on so they can tune in and what do we say sometimes as teachers is, you know, sit still. But clearly, kids need to move not just in that moment but really throughout the day so that they can have that strong vestibular system to support development. And it also feeds into that limbic system which is really important for emotional regulation but also activity regulation to bring that back down again.

So we really want kids to move in ways that make adults gasp, right? We want them going upside down on swings, we want them climbing trees, we want them rolling down the hills, jumping off rocks, we want them to constantly challenge that vestibular system and to move frequently throughout the day, so that can be really strong and support their development, attention, emotional, excuse me, activity, regulation, all of that. So it can support learning in the classroom. So some ways to do that through outdoor play that I've seen over the years there, you know, rolling up and down the hills, when children do that naturally. Sledding is a really great one, you know, especially when they're sledding on their belly but sledding in all different ways. Mudslides, I love seeing kids like fully immersed in the mud, when they're on their bellies going down hills. Tree climbing is a really great one, looking up, looking down, looking where your hand is, you're placing, hand placement. Spinning in circles, swings outside. We use a rope swing at TimberNook which you just saw a picture of, I'll show you again. And we love it because they can use it in many different ways. As they go upside down, they sit on it, they climb up it. So there's a lot more choice with that.

The other thing is the proprioceptive sense is also something that can really be activated fully outdoors. And it's something that is also I feel like really suffering with children because if they're you know, constantly on their device especially right now, like if they're on electronics and they're pushing buttons but they're not getting that

deep pressure, that heavy work we, you know, that we really wanna see, right? So that resistance to the joints and muscles that help develop their sense of where their limbs are in relation to each other but also to know how much force to use when playing games like tag, right? And also holding a baby chick without squeezing too hard, writing without breaking the lead, maybe they're not writing hard enough but they're really lacking that. And so we're starting to see a lot of issues with tag and where kids will go to play a game with tag and they're hitting with much more force. And so what schools are doing is they're starting to ban tag not knowing that, you know that this is a thing. So this is something we really wanna advocate for that they have much more opportunities for heavy work and I really feel like this is best done outdoors where children have plenty of space to move around. You know, shoveling, building dams is a great one, right? They're picking up these heavy rocks or getting dirty at the same time. Moving that around, it's all through meaningful play, it's important to them, it's motivating. Digging in the dirt for hours, carrying heavy buckets of water, it's all their choice. And so it's even more meaningful that they're getting proprioceptive sense stimulation through that.

I also think that loose parts are a really great way to inspire proprioceptive work. Again, you don't have to force it on the kid but you know, really inspire through the use of your environment is key because it leads to child directed play when there's a lot of inspiration. It's so motivating for kids to play and use materials in ways they've never done before. And so we will often place bigger, large items for building outside on purpose because the first thing kids often do at TimberNook is they build forts. They wanna build a sense of space especially if they're here for a continuous time. We have programs that run year round and we also have programs that run like a week at a time. So like our summer camps are coming up in the first day, especially the older children, they wanna create their homes. And what better way to get that heavy work, right? So they have pallets out there, we'll have planks, tires. In Australia they'll draw

drill holes in the tires so that if you have to worry about spiders or anything like that, they'll paint inside.

But you know, using materials called loose parts is great for perceptive work but it's also great for many other reasons. And another reason is that they can be used for many, many purposes. So for instance, a stick is an example of a loose part and a plank, a blanket could be a loose part, they're really materials that can be used for multiple purposes, that's kind of the definition for them. And the reason why that's so great is because it helps promote creativity and children as well. So for instance, if a child goes out and you say, okay, I want you go outside and know this is healthy for you. And you tell a parent to you know, you advocate for their kids go outside. Sometimes those kids don't have a lot of practice and they come back, and they say, there's nothing to do out there, I see sticks and I see rocks and leaves and I have no, you know, they don't have any ideas yet. So that's because they don't have what we call a lot of visual affordances. And they don't... They haven't seen those loose parts used in different ways yet. So let's say you send that same child back out and he gets bored and he picks up a stick and he sits in the dirt and he starts digging with it. Now he has one idea. He goes, oh, I can use this as a tool. And so now he has one affordances. Let's say then he starts writing with it in the dirt. He goes, okay, I have two affordances, I can use this as a writing utensil and I can use this as a tool.

Now let's add other children to the picture. This is why it's so great to have two neighborhood play too. So they see another child using a stick to build a fort with it and they realize, oh, I have three ideas on how to use a stick. I can use that as a digging tool, a writing tool and I can use it to build forts. So the more exposure they get touch other children using materials in different ways. And the more practice they get with those materials, the more visual affordances they get, the more creative they get over time. Each year at TimberNook, we say this is a the most creative we've ever seen kids get because the kids come back. They wanna keep having these play experiences

but they always outdo themselves, they always bring play to whole different level the next time they come out because they scaffold on their play opportunities. They get more new ideas and then new children come and they inspire those children to play in ways they've never played before. So it's really good for creativity as well as that sensory stimulation that we're talking about as well.

So here are some example of loose parts that we commonly use at TimberNook to inspire different kinds of play because the key is using the environment again as inspiration so the adults can step back and allow the children to direct their own play. And that's how we get to a more child directed play experience true occupation for children is that we empower and inspire. So we do that again, by using our environment. Some of the loose parts we use a lot are the type of materials that children might use for is one that is some of them tears we might use. So things like sheers which are, there like curtains, I guess that are transparent, you can see through them are used a lot because children will use them often for dress up. But they'll also use them to build forts with and they like it because they can see you coming. But they're used for multiple purposes and that's why we like those versus putting, let's say specific dress up clothes outside because again, they're limited in their potential. We will also use bricks, real heavy bricks, right? So that again, they're getting that proprioceptive feedback. It's that texture from the bricks, it's real. Children wanna play with real materials. It's very inspiring to have permission to do so. Gutters, pallets of baskets with nothing in them because again, it's open, they grab the baskets, they go and then they get their own ideas.

We tend as adults to wanna be the idea givers and children have over the years what we've learned is they start to rely on adults to direct their play for them. And they will turn to adults saying, is this okay? Am I okay to do so? Constantly seeking this the sort of reassurance I guess and they also will start traveling more. We notice if we are very close to where they're playing out in the woods, they will turn to the adult to solve their

problems for them. But what we've learned over the years is if we step back and we reduce adult presence out there, the children will turn to each other and they start, they start solving their own problems and it's a beautiful thing to watch and it's something that they're not given enough opportunity to do but it's such an important life skill for them. So here's some example of loose parts. And , again, you'll have this in your handouts so you can look at it again later.

All right, so another sense that's really, I guess, take into a whole different level when you go outdoors is the tactile sense. So one thing to think about is when you step outside, you tend to get more full body engagement of the senses, right? And that's true for the tactile sense as well. So we're gonna look at an image in a minute of a sensory bin and we're gonna look at how that compares to an outdoor environment in a second so you can see it for yourself. But if you think about look at this little boy in this picture, like he's totally there, we were visiting giant mud puddles, he is totally immersed. He found a frog which is incredibly meaningful, right? To capture frogs and he's got head to toe mud, the slimy frog in his hand. But yeah, it's full body engagement. He's totally immersed in that sensory experience. Another example is going barefoot in a log, climbing trees, your whole body is engaged. Gardening. So let's look at a picture to kind of get an idea. So sometimes we'll have, in our clinics will have these sensory balance beams. This is the closest we could get to have a picture but I'm sure that many of you know what I'm talking about. They are engineered loosely plastic like this and they have like pinkies on them so that they provide a tactile sensation, right? So I started really thinking about this like a while ago and just really kind of comparing what happens when we take the sensory experience outdoors.

So, and when I do speaking engagements, I often will have an image of both up and ask participants to start thinking about if our objective is to create change 'cause these are both considered sensory experiences, right? Walking on the plastic balance being with pinkies on it and walking on a log are both sensory experiences. However, let's

take a step back if our objective is to create and provide a rich sensory experience that's gonna create change in the child, which one do you think will better meet that need? And what I often hear, almost always is the right one. And there's many reasons for that. And if you start really looking at the images and thinking about it and dissecting it, you'll understand it on a deeper level. So I'm gonna walk you through it because this isn't a live audience. But one thing that people almost always say is the image on the left the child, the plastic balance beams often, they're the same throughout, the tactile sense might vary a little bit but for the most part there, there's no give to it. And with the one on the right, when they walk on the log, the log will usually move with it. And so right away, you're gonna challenge dynamic balance, right? So you're starting to increase the challenge right away. If you look at the feet and the what the feet look like on the right, you'll see that they're even, almost like they're grasping onto the log, holding on, working harder. So even the muscles and the feet and the ankles are being challenged more. You get multiple senses, right?

On the right, you're gonna get muddy, you're gonna get dirty with it. It's real environment too you know. So what is truly meaningful to the child here. There's an element of risk, the log is off the ground, there's water underneath. So there's an element of risk taking. They can choose to stay on the log or get off if they want, there's probably room for other children. So there might be the sense of let's, you know, this play imaginary type play scenario going on. So there's multiple things happening on the right hand side. The other thing is sometimes when we set up obstacle courses for children, you know, like, for instance, with the one on the left, sometimes is that there's this preconceived, this is what we're doing right now. And often when children have sensory issues, as we know, there's usually anxiety tied with that and so sometimes even just having this preconceived we're doing this right now can actually rise anxiety level. So again, you know, allowing that choice to happen, so the child might get on that log, they might get off, they might decide to jump on it a different way. Because it's a choice it starts taking away that pressure.

I have a great example of a little boy that came to TimberNook one time and he knew we were going to our giant mud puddles that day and he had plastic welly boots on and I remember him saying, I will go to those mud puddles but I'm not taking my boots off. And so I said, okay, that's fine. So we went down and right away, I saw him, he went over and he was watching these other boys. So he was observing them catching frogs and he got so excited that he ended up going right in without thinking about it. And the mud went in his plastic welly boot which feels disgusting, right? So he came back out and he said, "Can I take these off?" And I said yes. So he took them off and he went back in barefoot. So and that again, that play trumped his fear and his anxiety and sensory issues. Now, we told the mother and she said, "Do you know that he had been working on trying to go barefoot two years in a clinic setting unsuccessful." But because this experience was so meaningful and exciting for him he went in. The other nice thing is, that was a real environment. So it was easy to generalize going barefoot in that mud puddle to being barefoot when he went camping. So he started going barefoot camping, he started going barefoot when he was outside. So that's another thing to think about. Just because a child is going barefoot on let's say this Giant Lego doesn't mean they're necessarily gonna be tolerant going barefoot in the grass or, again, in the dirt. Here's another example of, you know, how the natural world can take the sensory integration to a whole new level.

So I want us to look at the sensory bins, which again, there's not anything wrong with these and I use them from time to time but I just want to think about the richness of outdoor play and what it can offer sensory integration. That you just can't replicate indoors. So let's pretend these little sensory bins have sand in them for this case scenario. So again, looking at it, these are both sensory experiences. If you have sand with some plastic toys in it or you are on a beach and they're both sensory experiences, however, if our objective is to create a rich sensory experience that's gonna create change in the child, which one do you think will better meet that need?

And often I'll hear you know, like playing on the beach or playing and giant mud puddles because for many reasons. And so again dissecting but why? So again, when you step out doors one thing that you're gonna notice right away is its whole body engagement. So often when you have a sensory bin, you can, there's only a certain amount of space you have, right? So you might be able to fit your hands in or your feet in. There's only so much, you see these two children are like crammed together trying to get into the sensory bin. On the beach, you can have multiple children having more engagement with socially, there's plenty of space which is really nice. Another thing is you can start really integrating that tactile sense, right? So often we know that that fine touch for a lot of kids can feel a versa, right? So they you know, getting some sand on them might not feel so good for some kids. So the way to integrate that is that deep pressure, right? We hear about the brushing protocol and that deep pressure helps to integrate that light touch sense. And again, often these little sensory bins, you're not going to get that deep pressure at the same time because it's shallow, it's only so big. And so often when you're playing with little boxes of sand, you're just stimulating that tactile sense but you're not getting that heavy work at the same time. So on the beach, if you think about it, children, they're getting dirty but if you're running your hand through the sand, right? For hours, and so you're starting to integrate that light touch sense. So again, outdoor play is more conducive to that sensory integration in a way that's hard to replicate in an indoor setting.

So let's talk a little bit about social emotional learning. So another thing to think about is that children, really learn best through play and especially their social skills and regulating emotions. I have a great example of that. Many examples, but one that comes to mind often is this time where we had these girls build a fort and they were so excited about it, they had little gems that they were hiding in there for. And they were decorating and singing and all sudden, this boy went up to them and said, "You need to let me play." And right away as adults, we want play to always be happy and we wanted, you know, we wanna fix it for them. But something told me to just wait, you

know, like, let's just see what happens here. And this was early on in our TimberNook journey. So it was it was a time where I was still really learning, you know when to step in when not to. And he had scissors too by the way, so that put everyone on edge. We're like, oh, what's he gonna do and so we were watching him for safety but we weren't intervening 'cause, you know, again, they were just arguing. So he cuts their little twine and then that entryway puts the scissors down, he grabs her fake gems and then he takes off running in the woods. And what happened next was, actually the girls before he did that, they defended therefore, they formed a chain and held hands and said, "No, no, no, you won't." And so then he got mad and he stole their gems and ran. And so they ended up chasing him around the woods over and over again. And one of the people that were training with us at the time, said, "Okay, he's bound to get tired, "something's gonna happen here." So he did, and he said, "Fine, just take them," and gave them back the gems. So the girls go back, they put the gems back in there for it and they're singing and they're all excited. He's upset, so he goes over to a tree and he sulking, he has his arms crossed and he's angry, right?

So the girls go to him and actually only one one little girl went over and sat down beside him, that was unexpected. We didn't think that, you know, we're like, "Wow, this is interesting, let's see what happens." So the girl starts talking to the little boy and he gets really upset, we can't hear what they're saying. But he's like, blah, blah, blah, blah. And so she puts her hand up and she patiently waits till he regulates and brings his voice back down again. And then he gets mad, and he yells again, and blah, blah, blah, blah and she puts her hand up and patiently waits till he regulates. And then they have a conversation. He brings his voice down, he regulates and they start having a conversation and it was really cool to watch 'cause what happened next was this little girl invites the boy to play with them and that little boy was authentically included for the rest of the week in their play. Now if we had gone in right away and said, you need to let him play 'cause this how often do we do this, right? What opportunities would they have missed out on learning through that experience? So just really reflecting on

that, right? So the girl, you know, first of all, they actually learned to stand up for themselves, right? They said no. He learned a lot. He learned about regulation, he got to practice regulating his emotions. He was listened to, that little girl sat down beside him got on his level and she was practicing some pretty advanced skill which is awesome. And he was authentically included. That was another big key is that they solved their own problem. You know, if we had done it for them, he could have been resentful towards them and they could have resented him and it could have been an ongoing issues throughout the week that needed adult interaction. But because they chose the rules and they decided what was fair to them, there was no longer an issue.

So, you know, just thinking about that, how often do we not allow them to practice those more advanced problem solving skills, social emotional regulation, skills that are really best learned through play and really reflecting on your own childhood. And, you know, remembering, you know, growing up where you would go and you would learn, you know, you would knock on someone's door and ask permission to play and you would go off and you would trade things, you would negotiate and it wasn't always fair. We might, you know, it might not be fair to an adult size, but to you it seemed fair and that's how you learned so many different skills. So, you know, just really giving children more opportunities to just simply play. Peter Gray writes "Free To Learn", I would really recommend reading his book as well if you're interested in play and authentic play. But he really talks about, you know, the opportunity to allow children to have regulation and learn those skills through play and not always having an adult do it for them because then children become reliant on the adult to do everything for them.

So here are some other examples of, you know, child directed play opportunities and why it's so good. So, when the adults step back, you know, we find that children solve their own problems. Again, remember, I told you that if we stood too close to where kids are playing. For instance, if those girls were building a fort, if we were standing right there, they would have tackled and turned to us right away without solving their

own problem. They practice taking on different roles and practicing you know, kind of like, going through whatever it is that's going on in the world and they safely practice that through play. Let me give you an example of role taking. One time we were in the woods and I heard a horn blowing and it was like, and all of a sudden, I look I'm like, first of all, who brought a horn in our woods but it was a child that had built some, he had built a horn out in nature, I don't know how but he blew the horn and all of a sudden all these children came running throughout the woods and they lined up and the child was up high, had a feathered mask on and the child was like, "Okay, your top spy your top commander, you're..." and started creating a hierarchy of roles and these children were all you know, raising their hands and saying, "I think so and so should be the person to do this." In really, some advanced social skills, that was really fascinating to watch. Well, in the meanwhile the other side, there was another group of children and they were holding a council and they had a group that they were meeting and they were gonna go to war. But war in the sense of like playing almost like Capture the Flag type play, you know, so they were creating different roles and it's so fascinating to watch them.

But again, often children don't have the opportunities to dive that deep into play. We often give them shorter stints of play like recess is 20 minutes, right? So often you're figuring out who am I gonna play with? What am I gonna play? And right when you're about to jump into that play scenario, the bell rings so and then we wonder why we have to have more social skill groups and you know, practicing, you know, more advanced social skills. We have to give them more opportunity to practice that through deep play as well. So, I think we've talked about most of this. I wanna give two short case scenarios before we have to wrap up of how amazing, true authentic play is with other children. And again, this is gonna be needed more than ever. So just, you know, really keep that in mind, moving forward as a way to help children.

So this is a little child with cerebral palsy. We've always had children with all different abilities come to our programming and that we believe that it's just a full inclusion model and that children thrive. Children with special needs thrive in a program where it's true neighborhood play as well. So, one thing I used to get asked a lot was do you do camps just for kids with special needs? And we don't we tried it one time and it really wasn't TimberNook, it wasn't the same experience. And so what we do is we find a way to have children with special needs just join the group. And we feel like those are our biggest transformation stories because there for instance, if children all had trouble with social skills, we would never take those children say, we're gonna make a group with you because the peer modeling is so strong. You know, the children, it's just not real life either. Like it went through neighborhood play like you don't segregate children in that way. The research says they learn better from their peers than they do from just an adult model.

So this little boy, you know, had crutches and we had gone to a local agency, we're really curious about how to be more inclusive of children with more physical challenges. Again, we've always had children on the spectrum and you know, different sensory issues but we were really curious on how to make this outdoor play more accessible to children of physical challenges as well. And this is something you could look into in your locations but we found a location that they create adaptive equipment that allows children to access opportunities like hiking and skiing, that sort of thing. And we were like, well, what about outdoor play? Because these children need to play too. And she said, "Absolutely, we're willing to work with you." The rental equipment that they use is very inexpensive. You know, they rent it for a day and she actually recommended this particular child as our first case study because he didn't need a wheelchair but he had some physical challenges. And she thought that he would love this opportunity. So we worked with them and what we saw was fascinating. So he just kept right up with other children. There was a point where in the beginning of the week, some of the kids would feel bad for him. Like, for instance, he wanted to steal

something from the girls squad which is a game they play sometimes. And so my daughter who was 10 or 11, at times she was like, just take it. And she was trying to help help him obviously but what they learned over time is that he just wanted to play and so one of the times he went to steal from the girls and he worked so hard to get there. And he took something and he's walking away and all sudden you hear him scream and our nurse on hand was like, "Ah, is he hurt?" But you look over and he had this huge grin on his face 'cause one of the girls stole the thing back so that he had stolen and he just was like, he just was thrilled by that. And there was another point where he was pulling himself up and we got a nice video of this, that he was pulling himself up on these giant boulders and these boys, the boy clan that he was hanging out with, came up to him they're like, "Dude, are you okay?" And he's like, "Yeah, I just stole from the girls and they don't even know about it." Like so he wasn't even, they weren't talking about like, is he okay 'cause it took him a long time to pull up onto the boulder. And he he was talking about, "Yeah, I stole from the girls." So he was just totally included.

He did have physical therapy after TimberNook and he ended up after the first day not doing physical therapy 'cause he was the amount of work that he was doing out there was incredible. I mean, the physical piece of it, walking through giant mud puddles or resistance, pulling up on boulders, climbing trees, he was just fully immersed in it. He told his mother at the end of the week 'cause he had never played like this. Often at recess time, I guess, one of the little girls that went to recess with them said that he was always sitting on a little blanket and he would play card games but he wasn't fully immersed with other children. But out there, he was just fully immersed in the play experience. So when it was done, he told his mom that he was very angry with his mom. He said, "You said this was a week session, a full week." And she said, "It is." And he said, "A week is seven days mom, "this is five days." So he had an incredible time and I think we really need to, you know, start breaking down barriers and think

about creative ways to allow children of all abilities to access outdoor play in a bigger way.

So here's another case study. This past year, about four different children from different sites in America with selective mutism, we've seen outstanding, some incredible success stories with children with anxiety. So this is my son Noah who's four. I've got two older girls that they are young teens and then I've got this little guy and he has selective mutism, we think. We didn't have official diagnosis. So when he's in a social situation, he doesn't talk at all. And he started Reggio preschool, really well respected, amazing preschool and he would not talk to the kids or the teachers. And he started TimberNook and right away in two days, which is incredible, he was being pulled into more advanced play schemes. So they had him in cooperative play, the girls had in building a bridge out there and what was really nice about this is because it's all a choice and children often with selective mutism, you know, it's with anxiety in general like, when things are a choice, it really lessens the anxiety for them and breaks down the barriers. And again, because it's so meaningful that would often draw him in, he wanted to be a part of the experience.

The other really nice thing is we have mixed ages out there because it's more true neighborhood play. And so we'll have kids. So it was ages four to seven. So this, like a couple of the six and seven year old girls just loved him to death and so they would pull him into the play, so it really brought him from a parallel level of play to more cooperative play right away. So we thought that was really great and we heard very similar stories of other children with anxiety that you know, is just breaking down those barriers for them. So really just summing it all up, you know, thinking about what are our true objectives when we provide play opportunities that are therapeutic for children? You know, and some key questions I always ask myself when I'm developing curriculum or opportunities for kids in general is is it meaningful? Is it something that as a child you would have enjoyed? You know, or is it more something we're trying to just,

you know, get out of them. Like, I want them to work on fine motor. So I'm gonna, here are some fine motor activities. One thing that really helps us is we look at it through perspective of giving a play experience or a play to your occupation. And then within that occupation, like look at even this picture, right? The children are creating like a giant spider web but it's all propped out there. There's no one thing you need to tie the spiders on, that was something they decided to do. But when you set up a true play experience, often you're gonna see all the things you wanna see and more within that experience. So like like she's, you know, tying, doing fine motor, they were cutting with scissors. There's that social emotional piece, there's multiple things going on. She's balancing on the uneven terrain, she's gonna go to the basket, reach down and grab another one. So when given that kind of environment, it's working on multiple goals at one time.

So kind of looking at it through a different lens like and using that occupation and just saying, it's working on all of this kind of thing. If it's child directed, I feel like it's gonna be a deeper, richer experience for them. There's gonna be a lot of learning involved and creating that true change in the child. And again, it's gonna generalize over into real environments. We wanna empower these kids to play again too. A lot of kids are actually losing the ability to play and I think that's a big disservice for our children because, you know, it is a very important occupation for children outdoor play. I do feel like this is a form of occupational justice in a way. What we're trying to do here is we've seen a drastic decrease in the amount of outdoor play kids are getting. It's affecting their health and development in ways we never expected and it's really our duty to not only restore their outdoor play opportunities but to really enrich those and there's some very easy ways to do that.

So really starting to think about advocating for, you know, longer recess sessions. Those 20 minute recess sessions, again, are not enough to get into the more deep play opportunities that we want to see for the all the reasons we've talked about. We wanna

promote more outdoor play experiences both at home and at school as well. And at home and at school, it's actually pretty, there's some pretty simple ways to do that. And again, it's using that environment. So setting up loose parts like baskets outside, often adult materials that children don't typically get to use are very inspiring to them. For instance going to Goodwill or garage sale, I don't know if you can do that right now, you can probably find junk in your basement. But, you know, finding platters that you don't use anymore that are stainless steel or pictures, you know pots and pans that you don't use anymore. That and placing it near a mud puddle, just doing that alone for let's say a toddler will inspire hours of play. You know if you have giant snow hills, right? When the wintertime like thinking what else can you put out there besides sleds? Can you place out rope? Can you place out boxes and duct tape? Can they create their own sleds? But getting creative with how you stage your environment will actually inspire different kinds of play, both at recess time and also in the home environment as well and it does not need to cost a lot. It's often you can use materials that you already find at home.

Lastly, taking therapy outdoors, I think that... I think you can do this on a small scale and really rethinking, I guess some of our techniques and again, using true occupation is so therapeutic. So really looking through that lens is gonna be the key. You know, taking your swings outside, taking your play experiences outdoors. If it's possible, I do think kids need it more than ever before. So and that's it for today. If you wanna find out more about us, you can find us at [timbernook.com](http://timbernook.com). We do work with schools, we do certify schools to use Timber Nook programming year round and we also certify professionals that want to bring this opportunity to the communities and also are motivated to bring this to schools. And "Balanced And Barefoot" will dive deeper into the all the underlying issues that are going on but also the way forward for children and how we can help them in and through true play. Lastly, you can find me on Facebook, you can find us on Facebook as well.

- [Fawn] Great, thank you for such a great talk. We do have some questions coming in. Do you ever have any problems with bullying?

- [Angela] So we actually find it less of that. It's funny because there's actually, look up the Swanson Elementary School, they actually did research on this. They did an experiment with, it was a university in New Zealand that worked with three elementary schools and what they did was they were curious. If we went from a half an hour recess to a full hour and we got rid of the rules at recess time, what would happen? And they actually found a decrease in bullying and an increase in attention. And a lot of it is because there's a choice, there's more space, there's more time, there's less... It's a calming environment that we find less of that, we find a lot less behavior. The other thing is, it's a privilege to play and so their rights can be taken. So if they like do something to hurt another child, like they lose the privilege to play and it's so motivating that often we don't get to meet kids testing that.

- [Fawn] Very good. What was the book again by Peter Gray?

- [Angela] Is "Free To Learn", yep.

- [Fawn] "Free To Learn" Okay, we're gonna put that in a notepad, also the Swanson Elementary School so people can have that. And then how can we access an outdoor camper program? Can they get that through the website there?

- [Angela] Yep, so you can look at, if there's a one locally too, yeah.

- [Fawn] All right, you discuss making these play experiences and opportunities optional to the children. Can you explain how you do this and how you would set it up? Do you make different stations or that they can explore independently?

- [Angela] Yeah, so we call it staging. But we create, it's almost like a giant invitation to play. So if you wanna look up what an invitation to play is, you'll see on a small scale, we have special training that we do. So like, when we train providers, they come for a full week and get immersed in the philosophy. The other thing we do is we reduce transitions because we feel like there's too many transitions in children's lives and that actually is part of the problem. So but yeah, it's all staged to inspire play and it happens naturally. And often the other children are part of the inspiration. They'll see kids play in new ways and that inspires them as well. But yeah, there's a whole training that goes with the exact how to do that. The book does do talk about on a small scale for home environments and for school environments.

- [Fawn] And then I'm gonna take a few more here 'cause I want to be conscious of everyone's time today. How can we encourage parents who tend to be helicopter or even objective or object to this type of treatment?

- [Angela] Yeah, so I feel like the book will talk about that a lot more. And also The Decline Of Outdoor Play. The other presentation is gonna really opens people's eyes to what the harm we're doing actually. So you know, as a health care professional, we were taught, you know, to do no harm. We're at the point where we're actually seeing changes in physical and sensory development because we've overly restricted them. So when people, when that's unveiled to them, it's really hard to keep doing what you're doing. And so I think that knowledge is key and really helping to open eyes to the harm that's caused when you overly restrict.

- [Fawn] Okay, last question for the day. Do you see differences when children play in a forested area versus an open field or at a park?

- [Angela] Yeah. I feel like the forest, the forest area is definitely, there's just so much like benefits to that. There's, you know, like we were talking about even the trees

reducing cortisone levels but playing in the trees itself is really, is very grounding. We find like, and this is just based on observation but we've even noticed that kids like their noise level around here. When we are meeting up, we have two different areas. Like there's a drop off area where it's still a little bit forested but we're by a building. You'll notice the noise of the children is higher. When we go out in the woods and it's it's time to play, it's like this hush comes over the woods and they're grounded and they find purpose. So there's a huge difference. There shade and then there's so much you can do a trees as well.

- [Fawn] Thank you so much. There were several more questions coming in but I want to wrap up now. So please feel free to reach out to her and get those questions answered. So thanks again so much Angela for this talk today.

- [Angela] Yeah, thanks for having me, it was a pleasure.

- [Fawn] Thank you. Hope everyone has a great rest of the day. You join us again on continued and occupationaltherapy.com. Thanks everyone.