Four Keys to Brain Development

Janelle Durham, MSW, Parent Educator. gooddayswithkids.com

In the first five years of life, a child's brain grows from 25% the size of an adult's brain at birth to 92% of adult size. All that growth comes from making connections – connections built through hands-on, multi-sensory experiences of their world. There are several ways parents and teachers can support children's development.

Novelty – New Experiences 

We can provide a diverse array of new experiences. These don't have to be fancy, expensive, or complicated. Just everyday experiences - going for a walk, looking at clouds, stomping in puddles, touching a slug, making hot chocolate together, snuggling up with a book, playing with blocks, drawing pictures. *Any* new experience builds connections in a child's brain.

And if you don't have the energy to think of something new to do, try putting together two familiar things in a new way, and see what your child does differently. For example, take the rubber duckies from the bathtub and put them with the Duplos, or take the colander from the kitchen to the bathtub. Your child will be delighted by the new possibilities.

Repetition – Doing Things Again & Again Builds Mastery 

Doing something for the first time *makes* a connection. Doing it again *strengthens* that connection. Doing it again *in a different setting* makes new connections in the brain. Combining that activity with another creates more connection and deepens understanding. Think of a child who is learning to walk – they fall again and again until the a-ha moment happens. They will still wobble along for a while. But the more they walk, and the more different surfaces they walk on, the better they get. Or think of learning an instrument – we don't become expert by going to class once a week. Becoming a skilled musician requires playing the same scales again and again and playing a variety of tunes till you reach mastery. And then you feel proud and skilled because you're really good at something that took work.

Don't rush them. If they're just barely starting to understand something and you push them onward, they'll have a shaky foundation for future learning. For example, if you have a child who has just barely learned to count to three, don't rush them on to 4, 5, 6… 10… 100. Let them stay at three for a while – really exploring what three means. This gives your child a solid understanding of the fundamentals of math so everything later on makes more sense.

When my oldest kids were little, I over-did the novelty. I felt like I continuously had to provide new experiences. My oldest child resisted transitions so much, and looking back, I think it's because he was always feeling forced to move on before he was ready. By the time my third child came along, I had learned a lot about the importance of repetition, so I was willing to let him do things again and again. When he had the chance to do something again and again, he developed so much self-esteem in seeing himself as a competent learner. Whenever he was feeling anxious about anything else, returning to this familiar territory helped get him grounded and feeling capable, then he could take on new challenges.

In addition to repetition, you can also think about reinforcing learning by following a child's interests. For example, if your child is wild about dinosaurs, you can teach everything else they need to learn in that familiar context – you can teach letters, counting, colors, music and art, all focused on dinosaurs. Their engagement and excitement makes learning easy.

Down Time to Process it All 

Children need rest. It is during sleep that we build myelin sheaths that insulate the brain's nerve pathways, helping us access information more quickly, and efficiently apply knowledge to new situations. (Nutrition is also important. To build myelin, they need a diet with plenty of healthy fats, like fish oils, nuts and seeds, avocados, olive oil, and whole milk.)

Children need down time – time to putter around "doing nothing." Time to play aimlessly. Time to "waste time." When they don't appear to be doing anything "important", they are busy processing all the new learning they've experienced. They need time to take it all in.

Don't feel like you have to constantly entertain your child. When they are "bored" they may come up with some of their most creative ideas. They might make connections between things on their own. They discover and problem-solve. They learn to play independently.

I think it can feel tricky to find the right balance between feeling like we should introduce novelty and knowing when to step back and let them explore on their own. If your child is content and "in the flow" doing an activity, they don't need you to interrupt them with your own agenda. When they do look to you for input, jump in with new ideas, but then fade back when they no longer need you to keep the activity going.

Look for a balance in your day and in your week: when are you doing new things, when do they get a chance to do familiar things in familiar environments and when do they have quiet down time? Watch their cues – if they're calm and content, you've likely got a good balance. If they're anxious, overstimulated, prone to meltdowns or bounce from thing to thing without ever settling on anything, you might need less novelty and more repetition and down time.

Incorporate novelty and repetition into your routines. For example, read two bedtime stories each night – a new one you chose from the library which introduces new ideas and a familiar one your child chooses from their favorites. Sing their favorite song but change the words. Let them practice their swinging skills at a variety of playgrounds.

Safety and Happiness ❤️

Yes, children learn from interaction with objects in our world and experiences they have, but they learn within the context of relationships. They learn best when they're happy.

When we're stressed, our brain goes into survival mode and we're less open to learning. The main thing we learn when we are stressed or anxious is how much we want to avoid having that experience again! When we feel cared for and safe, our system floods with oxytocin (the "love hormone") and our brains have a high level of "neuroplasticity" – we're open, flexible, and primed for learning. And we want to remember the things we're doing and to repeat them over and over. That reinforces learning. So, one of the best ways to grow a brain is to love your child, and to enjoy playing and learning together.