

INFANTS, TODDLERS, & TWOS MEETING LEARNING & DEVELOPMENTAL NEEDS OUTSIDE

So what does go on in the brain and in the child's body during those very early years?



Is there anything going on here?

This baby is just staring. Is the brain operational here? Is there any brain activity going on? Could he possibly be learning while staring? Stay tuned!

Good News

The last 100 years have seen enormous advances in our understanding of how the brain develops and how children learn during the early years. From the neurophysiology of the developing brain to the ways children learn and process information, we now know that ***a lot is going on during the first three years.***

PHASES OF DEVELOPMENT – Infants, Toddlers, & Twos

INFANTS BEFORE THEY SIT (birth to 4/5 months)



WHAT CAN THEY DO?

- **Stare** – Have you observed your infants staring? Just put a new and novel material or thing in front of them. They will stare and stare. This is an important developmental task. This is learning. This is brain development. This is preparation for school readiness. Children can practice this developmental task of “staring” - **OUTSIDE.**
- **Point** – Later, infants begin to point at the object/material/thing. If you want an infant to notice something, point to it. Extend your arm, point your index finger, and follow your finger tip with your eyes, staring hard. This powerful stimulus to focus on pointing follows the maturational imperative to pay attention to movement. Children love movement. By 9 to 12 months, all of this movement leads an older infant to interact with other human beings – another child, the parent, the teacher. And children can learn and practice the developmental task of “pointing” and experiencing movement – **OUTSIDE!**
- **Imitate** – Infants imitate naturally and will copy movements within their developmental capacity. And infants can practice this developmental task of “imitating” – **OUTSIDE!**

INFANTS BEFORE THEY WALK AND CARRY THINGS (5 to 12 months)



WHAT CAN THEY DO?

- **Use their hands.** These children begin to get their hand to work – and then they begin to get both hands to work - and eventually they get both hands to operate in concert with each other. But they must have materials/things/moving parts to develop those hand skills. And they must have an attentive adult who shows them how to do it – pick it up, throw it, swirl it, whatever might be done with the object. They must have opportunities to practice these movements. And we can provide practice for them to use their hands with *natural materials and loose parts* – **OUTSIDE!**
- **Begin to sit.** When infants begin to sit, they get a brand new visual field that was inaccessible from back or tummy. With so much to see and from so many different perspectives, with new eye/head/hand abilities, the world is opening up to them. If they have experiences and opportunities to interact with meaningful things/materials/loose parts, a whole new world of learning begins to open up. Infants can have these experiences and opportunities – **OUTSIDE!**
- **Movement.** Every infant creates movement over and over again thru their interactions with materials/things/loose parts and their interactions with other humans – parent – teacher – or another child. Now they are using hands, eyes, fingers, arms, shoulders, and other body parts. Their movement is more intentional, it's focused, it's self-motivated, it's probing and exploring. It is the essence of learning and development. It is brain development and it is preparation for school readiness. Infants can practice and have these movement experiences - **OUTSIDE!**
- **Language.** Language centers in the brain are active long before the physical apparatus that enables children to speak is operational. But the adults in their lives must talk to them – a lot, about everything. The more teachers and parents talk to young infants, the larger their vocabulary will be upon entering school. Tell them the names of everything – **OUTSIDE!**

So...even with very young infants, we need to think about brain development. We support young infant's brain development by **providing experiences for them to stare, to point, to imitate, to use their hands, to hear language.** All of these are preparation for later learning in math, literacy, language, science...everything. But they must have these foundational experiences to build on for success in later learning and development. During these early years, we adults are **building a strong foundation for the house. We'll concentrate on building the house later.**

TODDLERS' WALKING, CARRYING, AND MANIPULATING (12 to 36 months)



WHAT CAN THEY DO?

Well they are really exploring all kinds of things now. They're reaching for things, touching things, carrying things, collecting things, hiding things – these are complex operations, but toddlers can do them – **OUTSIDE!**

These developmental phases – staring, pointing, imitating, learning to use the hands, sitting, developing language, walking, carrying, manipulating – are all described in the *North Carolina Infant Toddler Foundations*.

THE CHALLENGE FOR PARENTS & TEACHERS

So, the critical responsibility for parents and teachers during the infant, toddlers, twos stages is to present things/materials/loose parts at the right time – not too early, but not too late. We don't want the child to be frustrated by presenting material and experiences too early. We don't want the child bored by presenting materials and experiences that they are already thoroughly familiar with. This is what Vygotsky calls presenting materials and learning and development experiences that are *within each child's "zone of proximal development."* For any activity or experience to result in learning and development, we must present materials and interactions with materials – experiences – within each child's *zone of proximal development* – within his learning zone. Otherwise, NO LEARNING TAKES PLACE!

Each child's zone of proximal development is slightly different even if the children are the very same age. So if we don't get this right, the child will become frustrated if the experience is too challenging; he will become bored if the experience is not sufficiently challenging. He will experience failure instead of success, and he will not be turned on to the wonderful world of learning. The brain will not reach its potential for optimal development. The child will not be adequately ready for school. To assure school readiness, parents and teachers will need to provide

materials/things/movable parts and interactions and experiences that fall within each child's *zone of proximal development*. All of these can be provided - **OUTSIDE!**



Remember - During these early years, we adults are ***building a strong foundation for the house***. We're not building the house yet – just a very strong foundation for building the house later.



Let's give our attention during the early years to the foundation *under* the house. Make it strong. Make it solid. Then, we can send our children on to teachers who will begin building the beautiful house. We can build a strong foundation by providing appropriate materials and loose parts, and appropriate child/adult interaction.

Developed by Betsy Thigpen, Nature Based Learning and Development Consultant/Advocate, Raleigh, NC
betsywku@aol.com

Adapted from Ann Lewin-Benham's, *Infants & Toddlers at Work: Using Reggio-Inspired Materials to Support Brain Development*.