



For Business Leaders: Understanding Early Childhood

Putting It All Together

The future prosperity of our society will be determined by the health and development of our children. The early years of life matter because early experiences affect the architecture of the maturing brain. As it emerges, the quality of that architecture establishes either a sturdy or a fragile foundation for all of the development and behavior that follows --- and getting things right the first time is easier than trying to fix them later. And because the brain is a highly integrated organ, you cannot focus on developing just one part of the child without paying equal attention to the other capacities. Social and emotional development are inextricably intertwined with learning. Simply put, you can't develop one and ignore the others, and expect a good outcome.

What derails development are certain kinds of stressors in a child's environment. "Toxic stress" in early childhood is associated with such things as extreme poverty, abuse, or severe maternal depression and damages the developing brain. It is important to distinguish among three kinds of stress. We do not need to worry about positive stress (which is short-lived stress, like getting immunized). Tolerable stress is made tolerable by the presence of supportive relationships, like a strong family when a loved one dies. But toxic stress lasts longer, lacks consistent supportive relationships and leads to lifelong problems in learning, behavior, and both physical and mental health.

The difference between the effects of various types of stress on the developing child is due to buffering effects that come from a strong and responsive environment of relationships. We now know that the interactive influences of genes and experience literally shape the developing brain, and the active ingredient is the "serve and return" nature of children's engagement in relationships with their parents and other caregivers in their family or community. Like the process of "serve and return" in games such as tennis and volleyball, young children naturally reach out for interaction through babbling, facial expressions, etc., and adults respond by getting in sync and doing the same kind of vocalizing and gesturing back at them. If a child is put in a daycare center with caretakers who are overwhelmed by too many children or by their lack of training or unfamiliarity with these particular children, they are unlikely to respond in a way that keeps development going well. Pay and benefits are low for childcare workers, so turnover is high. This means the person a toddler learned to trust yesterday may be gone tomorrow. That has consequences for the Serve and Return process that is the basis for child development.

What makes the difference between positive outcomes for the developing child and negative or impaired outcomes? Controlling the environments surrounding our children, for one, and especially the environment of relationships. Scientific evidence indicates that exposure to certain substances during the early years of life can cause significant and irreversible damage to the developing architecture of the

child's brain at levels that appear harmless for adults. This is why, for example, scientists caution against using pesticides at schools and daycare centers, and believe we need to impose new restrictions on environmental mercury. But a child's environment is also to a large extent an environment of relationships. The disruption of those relationships – such as the removal of a parent's attentions due to multiple jobs or incarceration – or exposure to violence inside and outside the home can harm the child because they literally disrupt the orderly architecture of the developing brain and weaken its structure for future skill development.

What can we do to make development go well for all our children? First, we can require the application of the most rigorous program evaluation science to new children's programs. When we pay attention to what scientists call Effectiveness Factors, we can make smarter decisions, investing in and replicating programs that can be proved to work rather than those that don't. By constantly updating our understanding of what works for children at different stages of development, we can make the best long-term return on society's short-term investments in children. Without these Effectiveness Factors, however, scientists have demonstrated that some children can spend just as many hours in a program, but not show many positive outcomes. If we want our society to thrive, we need to pay serious attention to how children develop and invest wisely in making that process go well. Fortunately, there is now a strong science base to help us to do just that.

Get Involved!

- **Partner with Wake County SmartStart** to connect with area child care facilities, parents, children birth to 5, teachers and providers and community organizations.
- **Join the discussion online** via the Wake County SmartStart [Web site](#), [Facebook](#), [Twitter](#) and on [YouTube](#).

Interested in more information?

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