

EARLY CHILDHOOD NETWORK GHANA

THEME:

Unlocking the Science of Early Childhood Development

May 14 2025,



BACKGROUND

Across the world, countries are realizing that investments in Early Childhood Development (ECD) are not only morally imperative but also economically sound. High-income nations, particularly OECD members, have institutionalized early childhood education (ECE) within their national development priorities—often allocating **over 1% of GDP** to pre-primary education¹. By contrast, many low- and middle-income countries, including Ghana, allocate less than **0.1% of GDP to ECE**, despite having greater developmental risks and higher child vulnerability².

This disparity has profound implications. As Ghana grapples with limited access, underfunded kindergartens, and a reliance on cost-sharing systems that burden low-income families³, it is essential to introduce science-based frameworks to guide caregivers, teachers, and policymakers. One of the most promising approaches is **neuroscience-informed early childhood practice**, which provides insights into how young brains grow, learn, and heal.



Why Neuroscience?

New scientific evidence shows that a child's brain architecture is built rapidly during the first five years, forming over 1 million new neural connections every second⁴. Experiences during this time—especially caregiving, learning, and emotional support—have lifelong impacts on mental health, academic outcomes, and socio-economic success⁵.

Early sensory and motor experiences shape not only how children perceive the world but also how they interpret social cues, develop language, and build emotional resilience⁶. For example, research shows newborns can imitate facial expressions and gestures within **42 minutes of birth**, demonstrating that **social cognition begins far earlier than previously believed**⁷. Moreover, studies reveal that **infants learn best when information is presented across multiple senses**, such as seeing and hearing at the same time—a finding that strengthens the argument for responsive, multisensory caregiving and early education⁸.

Yet, these scientific insights are rarely accessible to frontline educators or policymakers in Africa. This gap between **neuroscience knowledge** and **real-world practice** is precisely what the ECNG Virtual Neuroscience Series seeks to bridge.

OBJECTIVE

To democratize access to cutting-edge neuroscience and foster evidence-based early childhood care and learning in Ghana and across Africa through quarterly virtual sessions led by global experts.

Session Topic

The Brain Architecture of a Child – What Shapes Early Development?

Target Audience

Educators Parents Caregivers Social Workers Policymakers Researchers NGOs Development Partners

Format and Knowledge Sharing

Platform: Zoom

Features: Expert Presentations, Live Q&A, Resource Toolkits

 Knowledge Dissemination: Sessions will be recorded and shared via ECNG's website, social media, and bulletins.

Why Participate?

- **Apply science in practice** to improve caregiving, teaching, and policymaking.
- **Engage directly** with global researchers and professionals.
- **Build professional capacity** in brain development, learning science, and trauma-informed care.
- Shape inclusive ECD policies grounded in science and responsive to African realities.

CONCLUSION

To secure the future of children, we must first understand how their brains work and then act accordingly.

Join ECNG and Prof. Bat-Sheva Hadad Mantzur in this transformative journey into the neuroscience of early childhood.

Together, we can unlock every child's full potential through science, advocacy, and action.

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- 1. https://docs.google.com/forms/d/e/1FAIpQLSc-wNmW7s3-S6Ks5E5vORTBSDNx6-MwQpuSoFC7nfX7RXiycQ/viewform?usp=header
- 2. https://us06web.zoom.us/j/87352101507?pwd=wgi5Y3nxzBoP6tbp4xXU4Mx5VcnIbv.1





