

CHILD CARE

State Capacity Building Center

Making the Connection: Linking Early Brain Development Research to Practice

Infant/Toddler Specialist Network,
Child Care State Capacity Building Center (SCBC)

Hot Topic Webinar

May 20, 2020

Welcome and introductions



April Westermann, M.Ed.
Region X Infant/Toddler Specialist
State Capacity Building Center



Holly H. Wilcher, Ph.D.
Region IV Infant/Toddler Specialist
State Capacity Building Center

Who is with us today?

Please share your name, role, and state, territory, or tribe.



Objectives

- ◆ Identify the rationale for making the connection from research to practice.
- ◆ Examine and discuss the importance of infant/toddler brain development.
- ◆ Share and explore approaches to applying research to improve the quality of infant and toddler care.

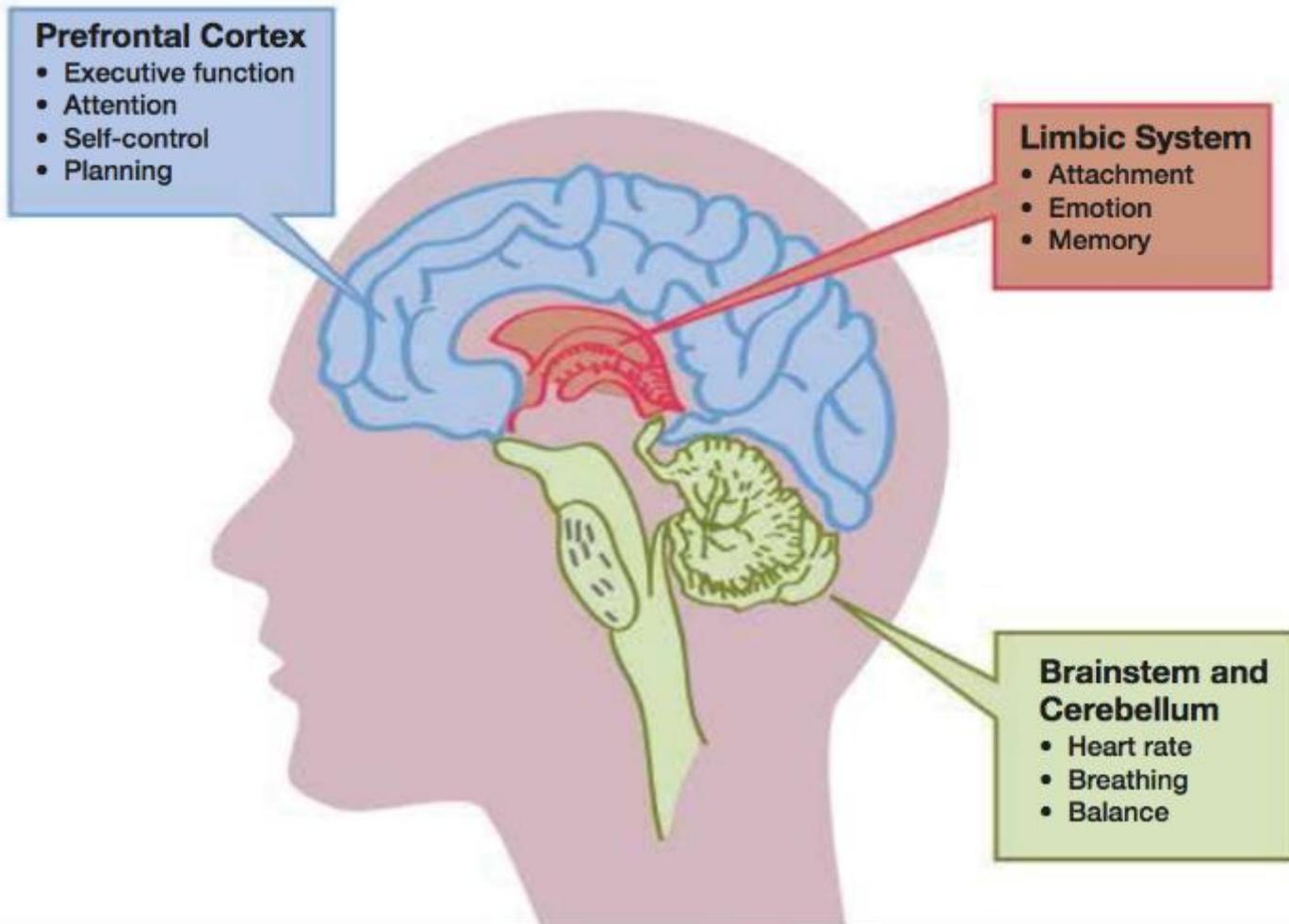
Framing the topic



“In the absence of responsive caregiving ... the brain’s architecture does not form as expected, which can lead to disparities in learning and behavior.”

Source: Center on the Developing Child at Harvard University. (n.d.). Brain architecture. Retrieved from <https://developingchild.harvard.edu/science/key-concepts/brain-architecture/>

Figure 2.1. **Brain Areas and Functions**



California Department of Education. (2015). *California preschool program guidelines*. Sacramento, CA: Department of Education. Retrieved from <https://www.cde.ca.gov/sp/cd/re/documents/preschoolproggdlns2015.pdf>

Experiences build brain architecture

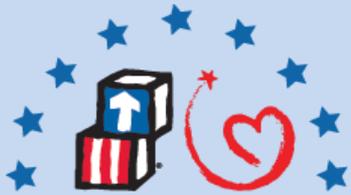


Center on the Developing Child at Harvard University. (2011). *Experiences build brain architecture* [Video]. Retrieved from <https://www.youtube.com/watch?v=VNNsN9lJkws>

Activity

What one gift would you give to infants and toddlers, to support their brain development?





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Guest speaker

Welcome:



Dr. Sarah Lytle, Director of Outreach and Education

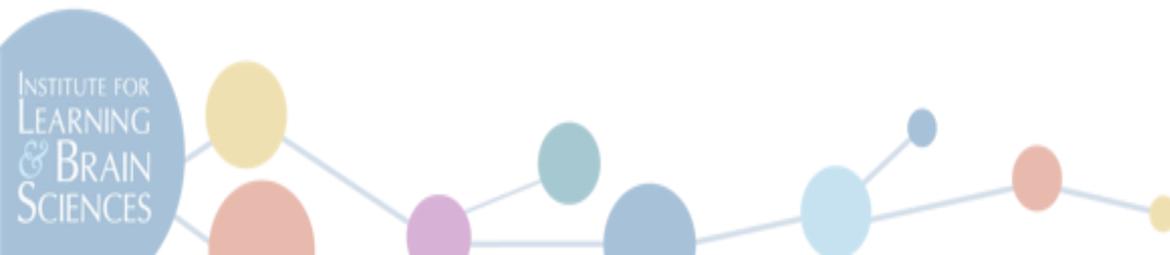
Institute for Learning & Brain Sciences (I-LABS)
University of Washington



Our earliest experiences build
the
foundational architecture of
our brains

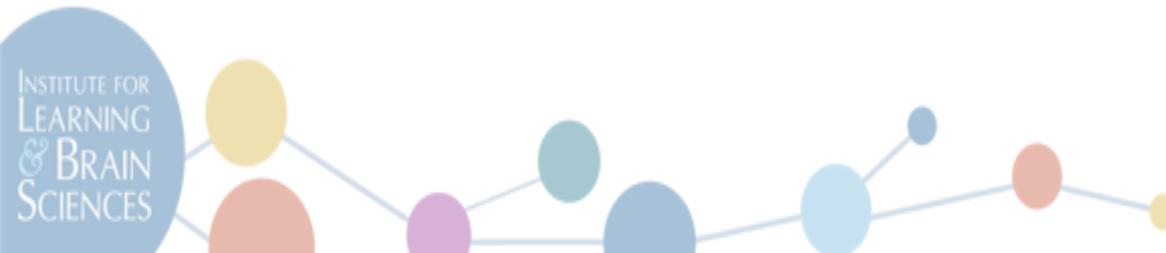


Supporting Early Brain Development



Supporting Early Brain Development

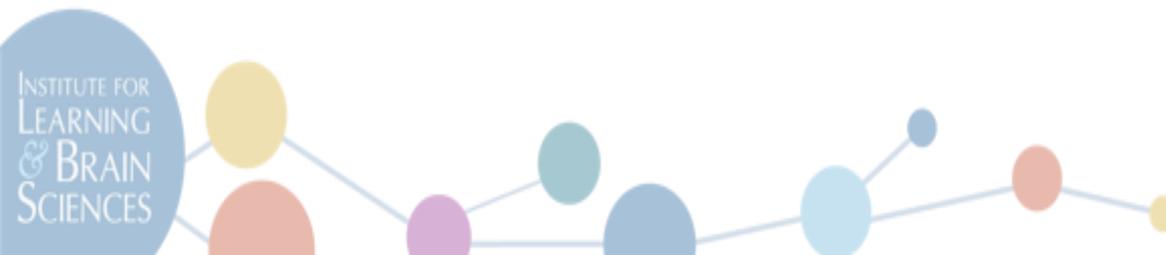
Have a conversation



Supporting Early Brain Development

Have a conversation

Share your
thinking

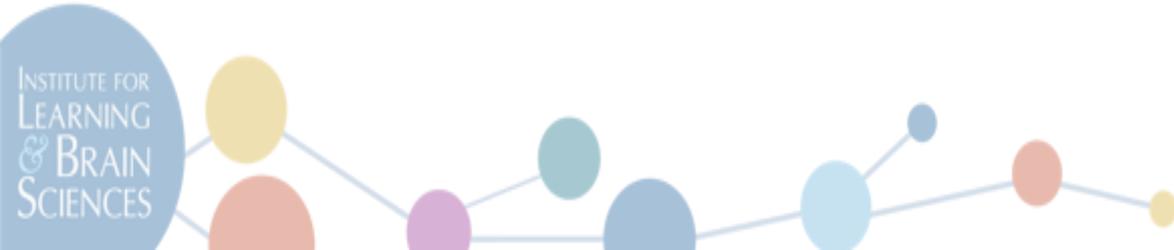


Supporting Early Brain Development

Have a conversation

Follow their
lead

Share your
thinking



Supporting Early Brain Development

Have a conversation

Follow their lead

Be a regulator

Share your thinking

Supporting Early Brain Development

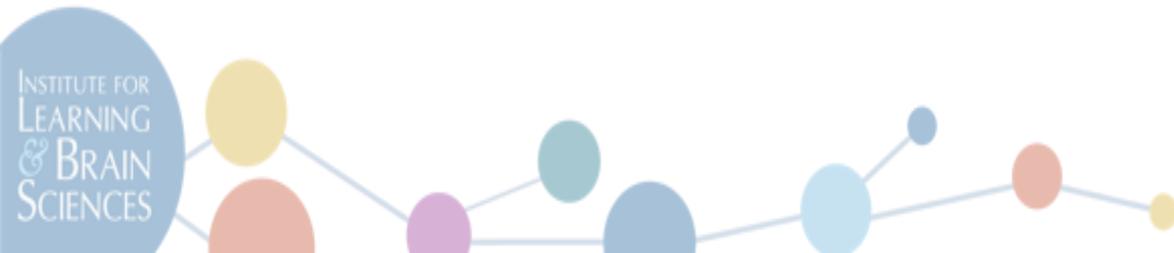
Have a conversation

Follow their lead

Be a regulator

Share your thinking

Model persistence



Supporting Early Brain Development

Have a conversation

Follow their lead

Be a regulator

Share your thinking

Model persistence

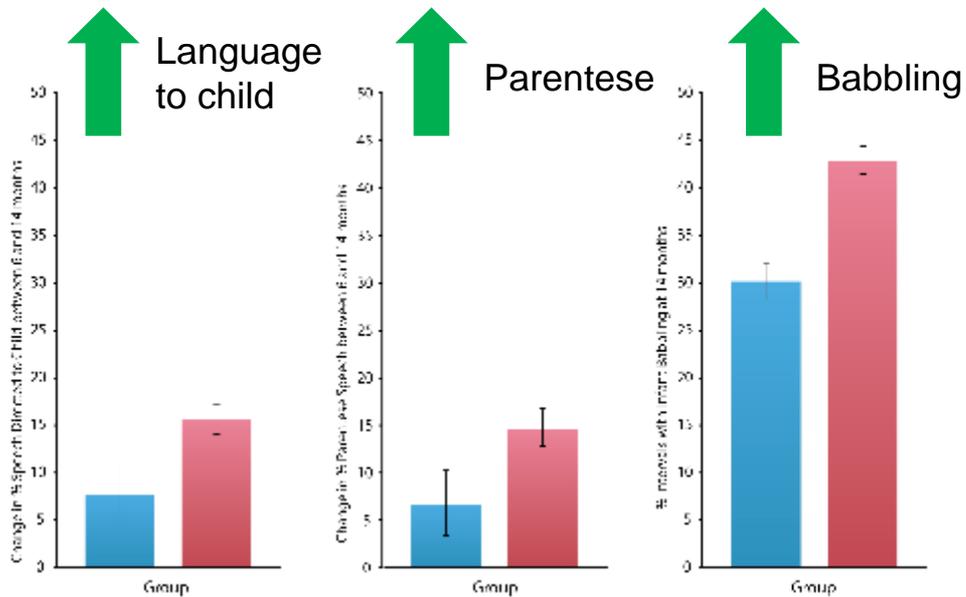
Make it predictable

Can caregivers be coached?

- Coach feedback on recordings of language at home
- Listen to audio samples
- Discuss upcoming language milestones
- Find times for interactive activities, like book sharing



Caregiver Coaching Works





Ferjan Ramirez & Kuhl, 2017

How to Teach Responsively

Click on the video below to watch an example of responsive teaching. As you watch, think about the tutor's role during the experience:

- How does the tutor let the children take the lead?
- How does the tutor make the interaction fun, relevant, and responsive?

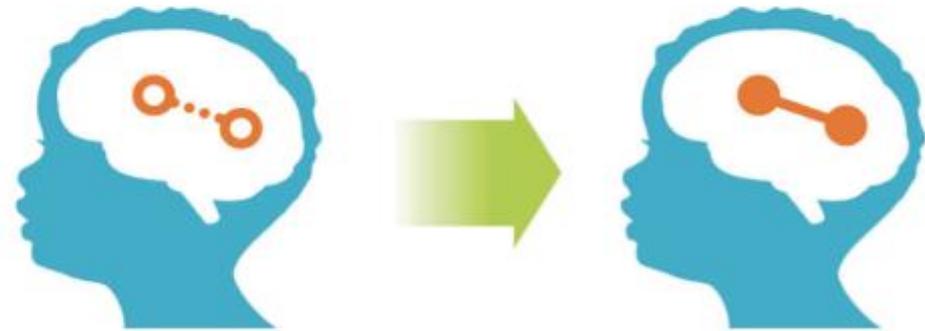


[< Previous](#)

[Next Step >](#)

Wiring the Brain for Language

To speak a language, our brains must wire together many different areas. Particularly important are the speaking and the listening areas. Young children activate these regions of their brains while they listen to you talk. You can support this process by speaking to them often with rich language, parentese, and encouraging them to "talk" back – whether using words, sounds, their eye gaze, gestures, or other responses.

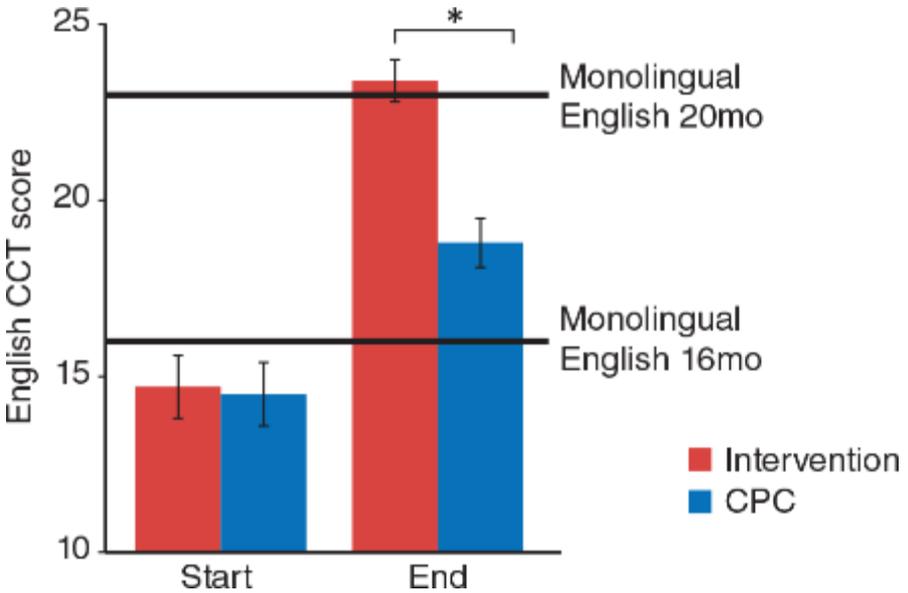
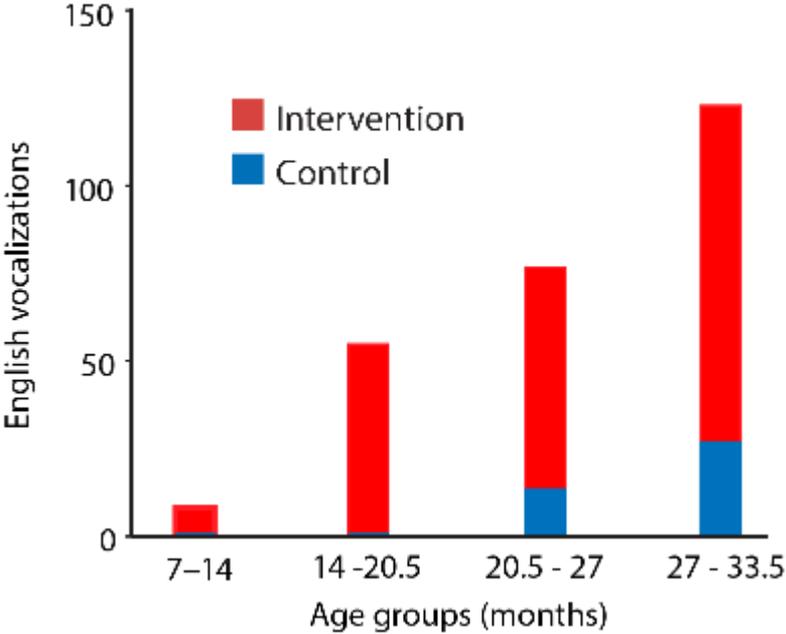


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[Next Step >](#)

Ferjan-Ramirez & Kuhl, 2020

SparkLing™ Language Curriculum

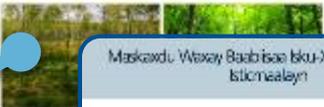


Ferjan Ramirez & Kuhl, 2017

I-LABS Online Modules



<p>Module 1</p>  <p>Introduction to I-LABS Time to Complete: 10 minutes</p>	<p>Module 2</p>  <p>Why the First 2,000 Days Matter: A Look Inside the Brain Time to Complete: 20 minutes</p>
<p>Module 3</p>  <p>The Importance of Early Interactions Time to Complete: 20 minutes</p>	<p>Module 4</p>  <p>The Power of Learning through Imitation Time to Complete: 20 minutes</p>

<p>A Forest of Brain Connections</p>  <p>Maskaxdu Waxay Baabiisaa Iku-Kidhyada Aan La Isticmaalayn</p>  <p>isid marka uu dhacdo Imuhu</p>	<p>Los Niños Aprenden Siguiendo las Miradas</p>  <p>isid marka uu dhacdo Imuhu</p>	<p>Tạo Ra Một Bộ Não Biết Phối Hợp</p> <table border="1"><tr><td></td><td>Vùng Nhận Biết Tiếng Nói</td><td>Vùng Tạo Ra Tiếng Nói</td><td></td></tr><tr><td>Sơ Sinh</td><td></td><td></td><td></td></tr><tr><td>6 tháng</td><td></td><td></td><td></td></tr><tr><td>12 tháng</td><td></td><td></td><td></td></tr></table> <p>Phong Khoa Tâm Thần, Viện Y Học Trẻ em, Viện Hàn lâm Khoa học và Công nghệ Việt Nam, 2015</p>		Vùng Nhận Biết Tiếng Nói	Vùng Tạo Ra Tiếng Nói		Sơ Sinh				6 tháng				12 tháng			
	Vùng Nhận Biết Tiếng Nói	Vùng Tạo Ra Tiếng Nói																
Sơ Sinh																		
6 tháng																		
12 tháng																		

Voices from the Community



"...a lot of people look at it like, oh they just babysit...[the module content] empowers [the staff] more to really value what they do, and say hey I am a brain builder."



"It was really useful to see something that I could show to parents that was so visual that they didn't need to understand any educational jargon in order to really get the message."



"I am really happy I've found the modules, and I've shared them with my friends, and I am trying to convince everybody that they should have a look - everybody."



I-LABS TRAINING MODULES

THE LATEST RESEARCH

modules.ilabs.uw.edu

ABOUT THE YOUNGEST MINDS

Free
resources

Also
available in
Spanish,
Somali, and
Vietnamese.

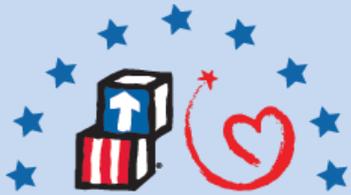
Thank you!



Questions?



Thank you, Dr. Lytle!



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Guest speaker

Welcome:



Dr. Jennifer Fung, Research Scientist and
Professional Development Specialist
Haring Center for Inclusive Education
University of Washington

Early Intervention to Address Developmental Delays: Shaping Effective Professional Development

UNIVERSITY *of* WASHINGTON

HARING CENTER
FOR INCLUSIVE EDUCATION



Early Intervention: Why?

- > **Early relationships, stimulating environments, and an active, engaged child shapes brain growth and development ...**
- > **But, what if a child is unable to fully act on their environment or engage in relationships with the people in them?**



Early Intervention: Why?

- > High quality early intervention services can change a child's developmental trajectory and improve outcomes for children and families



Early Intervention: Who?

- > **Children under the age of 3 who:**
 - **Demonstrate developmental delay**
 - **Established physical or mental condition with a high probability of developmental delay**
 - **Illegal substance abuse or withdrawal symptoms**
 - **Substantiated case of abuse or neglect**

- > **In some states:**
 - **Children who would be at risk of developmental delay without early intervention services**



Early Intervention: How?

- > **Key principles of Part C**
 - Family-centered and capacity building practices
 - Meaningful intervention in natural environments



Early Intervention: How?

- > **Based on developmental science**
 - **Relationship-based**
 - > Nurturing, responsive interactions
 - **Environments**
 - > Target active engagement



Early Intervention: How?

- > **Specialized**
 - Intensity
 - Instructional strategies
 - Focus of intervention



Effective Professional Development

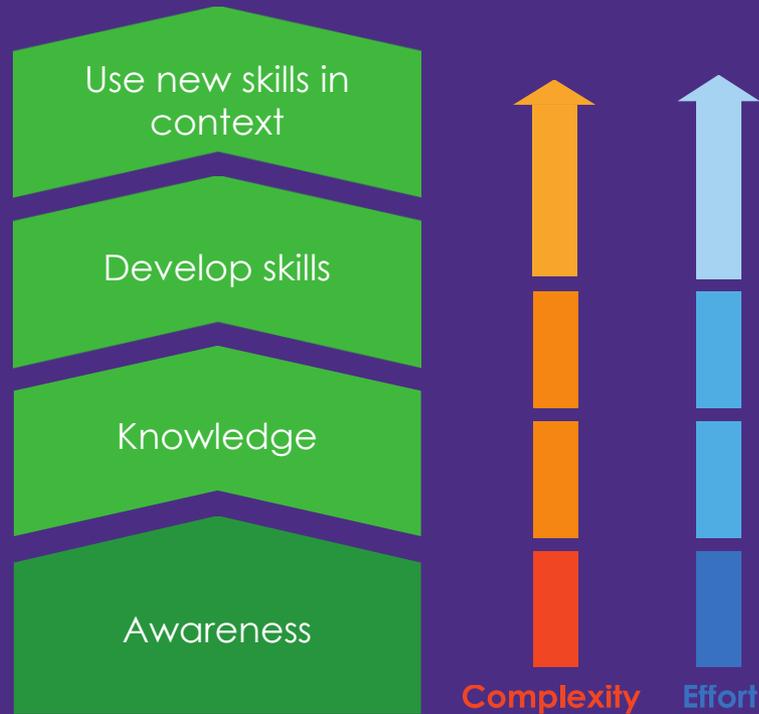
> Features of high quality PD

- Achieves desired outcomes
- Emphasizes high leverage content
- Fits the context
- Uses adult learning practices



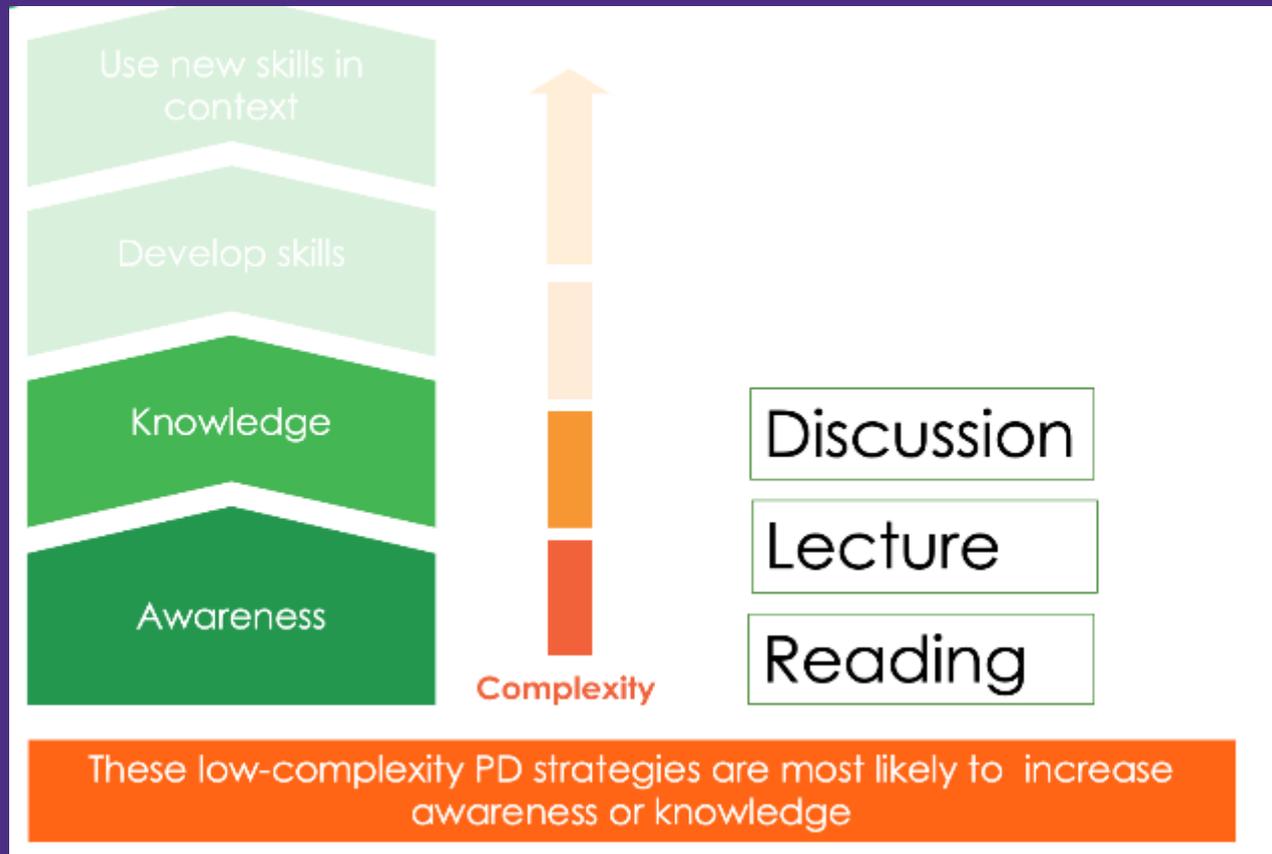
(Adapted from National Center on Quality Teaching and Learning)

Professional Development Outcomes



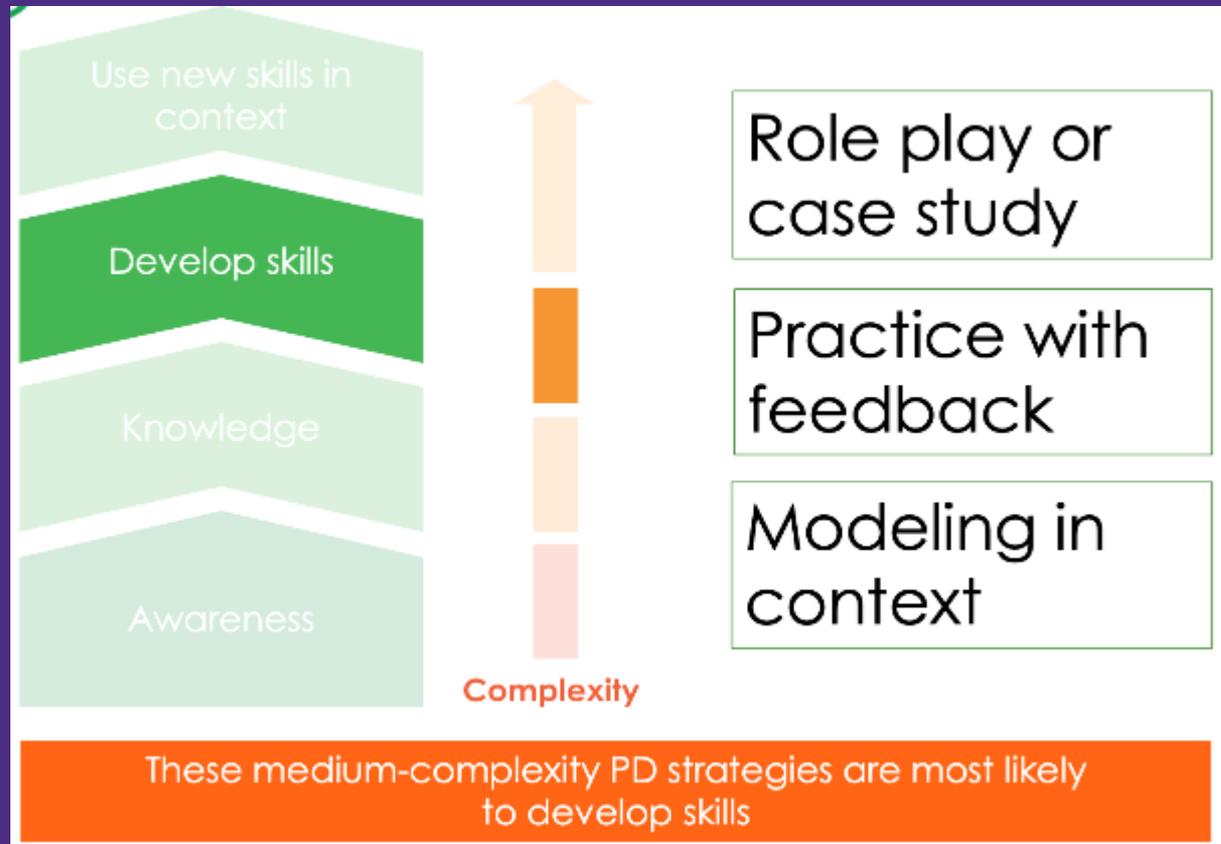
(Adapted from National Center on Quality Teaching and Learning)

Aligning PD Outcomes + Activities



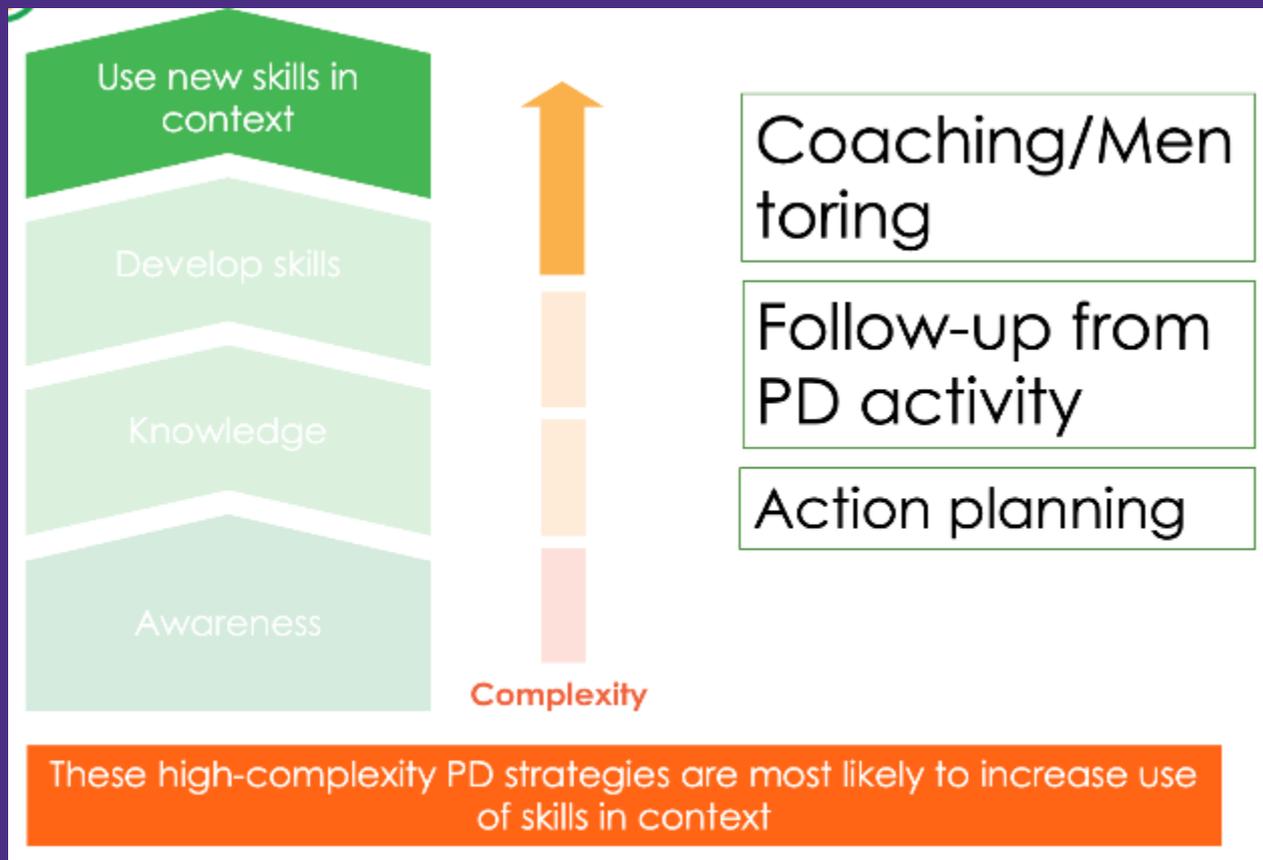
(Adapted from National Center on Quality Teaching and Learning)

Aligning PD Outcomes + Activities



(Adapted from National Center on Quality Teaching and Learning)

Aligning PD Outcomes + Activities



(Adapted from National Center on Quality Teaching and Learning)

PD Activities + Outcomes

	OUTCOMES		
Training Component	Knowledge	Skill Demonstration	Use in the Classroom
+ Theory and Discussion	10%	5%	0%



(Adapted from “Student Achievement Through Staff Development,” by B. Joyce and B. Showers, 2002, p.78. Copyright 2002 by the American Society for Curriculum and Development.)



Sample PD Offering: QRIS Coaches

> PD outcomes:

- Increased awareness and knowledge
- Skill development



Sample PD Offering: QRIS Coaches

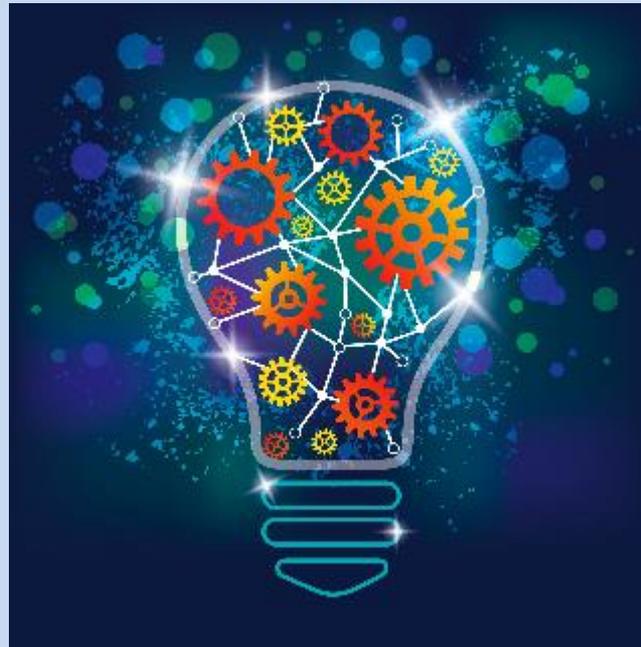
- > **PD activities:**
 - **Short-term internships**
 - > **Lecture**
 - > **Demonstration**
 - > **Facilitated observation**
 - > **Guided debrief**
 - **Ongoing coaching**
 - **Consultation**
 - **Resource library**



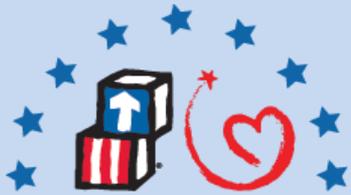
Thank You!



Questions?



Thank you, Dr. Fung!



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State examples

Massachusetts: Brain Building in Progress

- ◆ Raises public awareness and involvement in young children's development and learning by highlighting the importance of brain development and why it matters
- ◆ Brain Building Zones
- ◆ Reaches varied audiences

Georgia – *Better Brains for Babies*

Formed in
1998

- To share new research on early brain development

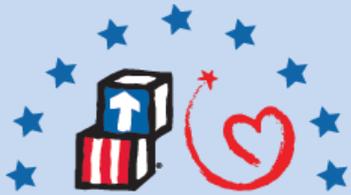
Training for
Trainers

- Over 500 adult educators/trainers trained in science of early brain development
- Three rounds of Continuous Quality Improvement (CQI)
- Better Brains for Babies Educator community and application process

Training
Materials
and
Resources

- Connect brain research to practice for infant and toddler caregivers
- Translated in Spanish

Source: Better Brains for Babies, <http://www.bbbgeorgia.org/>



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Wrap-up and conclusion

The caregiver's role in supporting early brain development



- ◆ Understand developmental needs
- ◆ Support secure attachment
- ◆ Promote close, caring relationships
- ◆ Engage in reciprocal interactions
- ◆ Respect individual needs
- ◆ Create an environment that invites exploration and discovery
- ◆ Support emotional regulation

5 steps for brain-building serve and return interactions

- 1) Notice and respond to children's serves.
- 2) Return the serve by supporting and encouraging the child.
- 3) Name what a child is seeing, doing, or feeling.
- 4) Take turns and wait, keep the interaction going.
- 5) Practice endings and beginnings.



Center on the Developing Child, Harvard University (2017). 5 Steps for Brain-Building Serve and Return [Web page]. Retrieved from <https://developingchild.harvard.edu/resources/5-steps-for-brain-building-serve-and-return/>

Video: 5 Steps for Brain-Building Serve and Return



National Scientific Council on the Developing Child & Center on the Developing Child at Harvard University. (2019). *Serve & return interaction shapes brain circuitry* [Video]. Retrieved from https://developingchild.harvard.edu/resources/how-to-5-steps-for-brain-building-serve-and-return/?utm_source=newsletter&utm_medium=email&utm_campaign=june_2019

Brain development is important!

- ◆ Responsive and reciprocal interactions (serve and return) cornerstone to healthy brain development
- ◆ Social emotional development
- ◆ Language acquisition
- ◆ Identity
- ◆ Self-regulation



Infant/Toddler Resource Guide



The screenshot shows the homepage of the Office of Child Care Infant/Toddler Resource Guide. The header features the logo and title. A navigation bar includes links for Home, State Level Policy Professionals, PD & TA Professionals, Infant/Toddler Care Providers, and Infant/Toddler Care Video Clips. The main content area is titled "About the Infant/Toddler Resource Guide" and includes a photograph of a caregiver and a child drawing together. Below the photo is a text box about program practices. To the right, there are sections for the purpose of the guide and intended users, with a bulleted list of target audiences.

Office of Child Care
Infant/Toddler Resource Guide

Home State Level Policy Professionals PD & TA Professionals Infant/Toddler Care Providers Infant/Toddler Care Video Clips

About the Infant/Toddler Resource Guide

What is the purpose of this guide?

This Resource Guide offers a host of materials to support the development and implementation of policies and practices for high-quality care for infants and toddlers. Whether you are a Child Care and Development Fund (CCDF) Administrator developing policies, a child care provider seeking information and guidance, or a professional development provider seeking innovative training materials, this site is for you. Development of this guide is new and actively growing, so check in frequently to see what resources have been added to support your work with infants, toddlers, and their families.

Who are the intended users?

We are including resources for three primary audiences:

- CCDF Administrators, staff, and state policy professionals
- Child care resource and referral administrators, training organization directors and trainers, higher education institution administrators and early childhood/child development faculty, and technical assistance organization administrators and providers
- Infant and toddler teachers, center directors, and family child care providers

The Program for Infant/Toddler Care Six Essential Program Practices for Relationship-Based Care

These papers promote evidence-based program practices that support infant/toddler care.

Child Care State Capacity Building Center. (n.d.). Infant/toddler resource guide [Webpage]. Washington, DC: Office of Child Care. Retrieved from <https://childcareta.acf.hhs.gov/infant-toddler-resource-guide>

Resources

- ◆ ZERO TO THREE. The growing brain from birth to 5 years old, a training curriculum for early childhood professionals.
<https://www.zerotothree.org/resources/1831-the-growing-brain-from-birth-to-5-years-old-a-training-curriculum-for-early-childhood-professionals>
- ◆ Center on the Developing Child at Harvard University. Executive function and self-regulation.
<https://developingchild.harvard.edu/science/key-concepts/executive-function/>
- ◆ Center on the Developing Child at Harvard University. Serve and return. <https://developingchild.harvard.edu/science/key-concepts/serve-and-return/>
- ◆ Center on the Developing Child at Harvard University. (2012). *InBrief: Executive function: Skills for life and learning*. Retrieved from <https://developingchild.harvard.edu/science/key-concepts/executive-function/>

**State Capacity Building Center,
A Service of the Office of Child Care**

9300 Lee Highway

Fairfax, VA 22031

Phone: 877-296-2401

Email: CapacityBuildingCenter@ecetta.info

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