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Building Baby Brains: The Importance of Early Experiences

- I. Evidence that experiences prepare the infant brain for learning
 - a. Everyone – including adults – are a product of the experiences we have had
 - b. Children learn from experiences before and immediately after birth
 - i. Learning language in the womb (Moon, Lagercrantz & Kuhl, 2013)
 - ii. Imitation after birth as learning about people (Meltzoff & Moore, 1977)
 - c. Over the first three years of life, a child’s experiences physically shape their brain
 - i. Experiences form the brain’s physical networks (Kuhl, 2011)
 - ii. Coordination between brain regions develops through experiences (Imada, et al., 2006)
- II. Dissecting experiences: What are the ingredients? Given that early experiences are so important, what are the ingredients of high-quality interactions that help children learn?
 - a. Children learn best from live humans (Kuhl, Tsao & Liu, 2003)
 - b. Children learn from the quantity, quality, and complexity of language
 - i. Quantity (Hart & Risley, 1995)
 - ii. Quality (Garcia-Sierra et al., 2011; Kuhl, 1983)
 - iii. Complexity (Lebadeva et al., 2010)
 - c. Children learn by understanding emotions (Repacholi & Meltzoff, 2007)
 - d. Children learn from eye gaze (Brooks & Meltzoff, 2002, 2008)
 - e. Children learn through imitation (Meltzoff, 1988; Saby et al., 2013)
 - f. Children learn from back-and-forth interactions (Roseberry et al., 2014)
 - g. Children learn from scaffolding (Landry et al., 2008; Lowe et al., 2012)
- III. Early experiences are the building blocks for later success
 - a. How do these early abilities predict children’s later skills? (Brooks & Meltzoff, 2008; Deniz Can et al., 2013; Kuhl et al., 2005; Ramirez-Esparza et al., 2014)
 - b. Helping a child become school-ready is about establishing supportive relationships, helping children develop communication skills, understand emotions, and allowing them to have everyday, playful experiences

Additional resources:

- **I-LABS website** (ilabs.uw.edu)
- **I-LABS online library of training modules** (ilabs.uw.edu/outreach-modules)
- **Thrive By Five Washington’s Love.Talk.Play. campaign** (www.lovetalkplay.org)
- **Zero To Three information on early development** (<http://www.zerotothree.org/child-development/early-development/>)
- **Center on the Developing Child, Harvard University** (<http://developingchild.harvard.edu/>)

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