

THE POWER OF PLAY

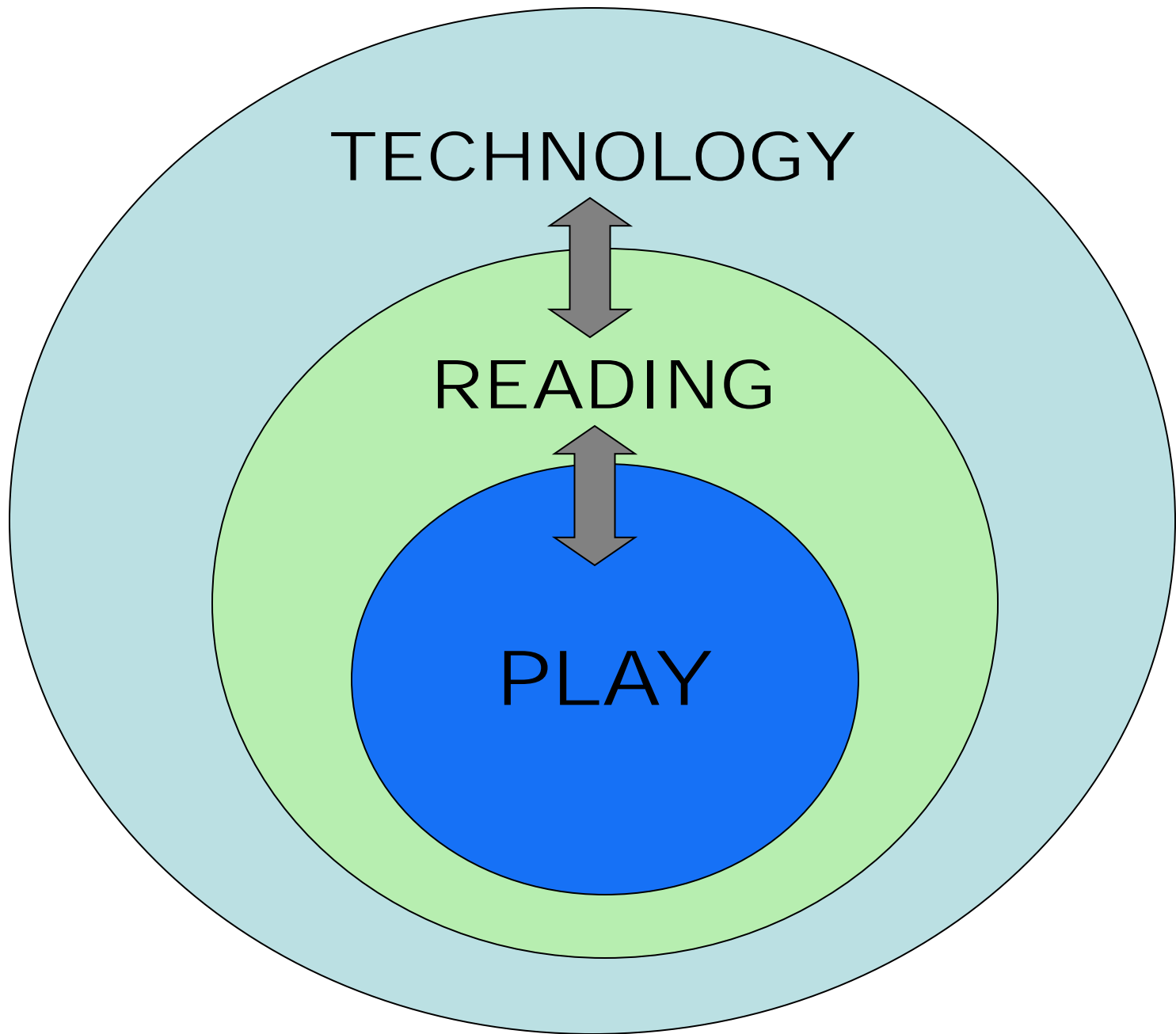
Redefining Priorities in Early Childhood

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Children's Book Council
New York, New York
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- Play is brain building
- Play facilitates the normal developmental progression from dependency to independence
- Pre-school curricula must emphasize informal, play-based learning
- Adult success is enhanced by play in childhood



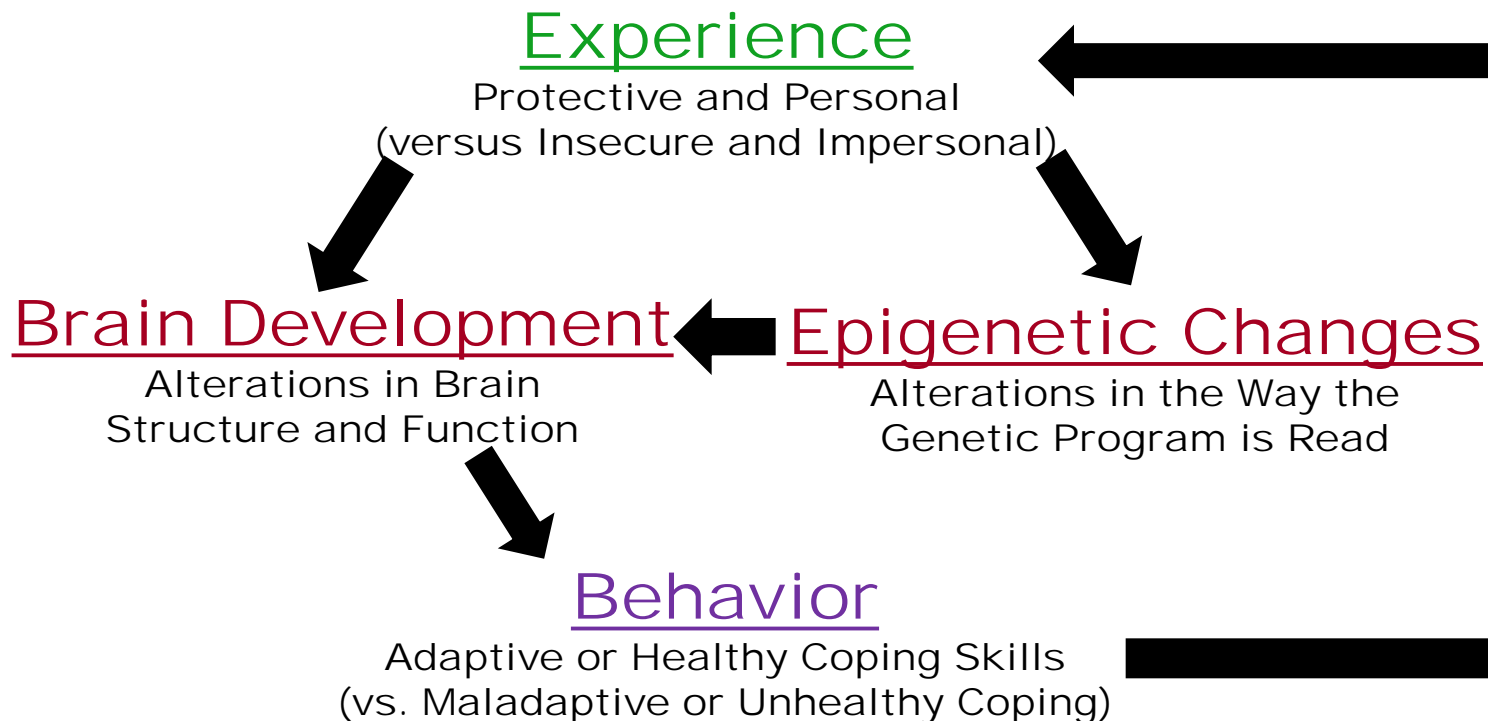
WHAT IS PLAY?

- ❑ Enjoyable
- ❑ No Extrinsic Goals
- ❑ Voluntary
- ❑ Active Engagement
- ❑ Brain Building
- ❑ Business of Childhood
- ❑ Development of Executive Function

SUMMARY



Development results from an on-going, re-iterative, and cumulative dance between nurture and nature





Critical Concept #2

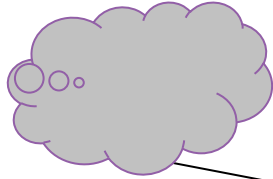
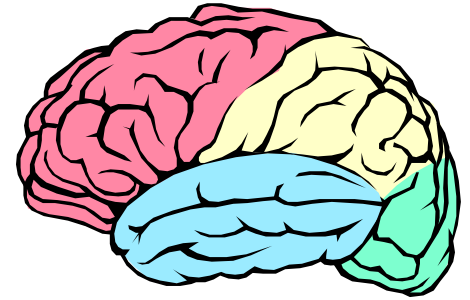
Epigenetics:

- Which genes are turned on/off, when, and where
- Ecology (environment/experience) influences how the genetic blueprint is read and utilized
- Ecological effects at the molecular level
- Stress-induced changes in epigenetic switches (and gene expression)

**“Genes may load the gun,
but the environment pulls the trigger”**



Out of Balance?



Prefrontal Cortex

Cold Cognition
Judgmental
Reflective
Calculating
Think about it

Biological maturity by **24**

Amygdala

Hot Cognition
Emotional
Reactive
Impulsive
Just do it

Biological maturity by **18**







- Attunement
- Hands-On Play
- Physical Play
- Imaginary Play and Storytelling
- Guided Play

Attunement



Hands-on Play



Physical Rough and Tumble Play



Imaginary Play



Guided Group Play

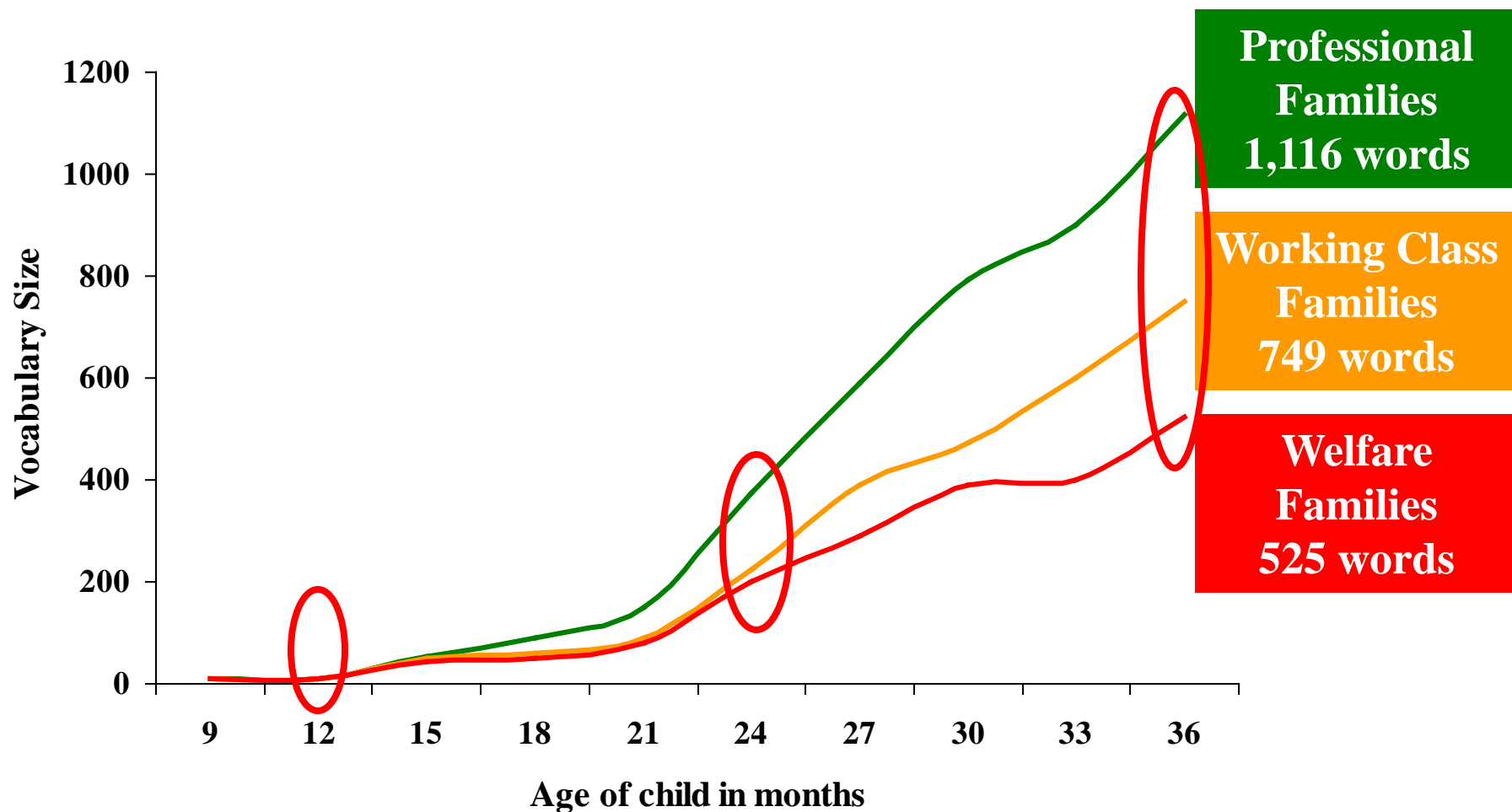


Fostering Self-Regulation

- Tools of the Mind
 - Mature make-believe play
 - Planning play
 - Teacher scaffolding
 - Peer interactions; buddy reading, doing and checking
 - Use of mediators
 - Self-regulation games

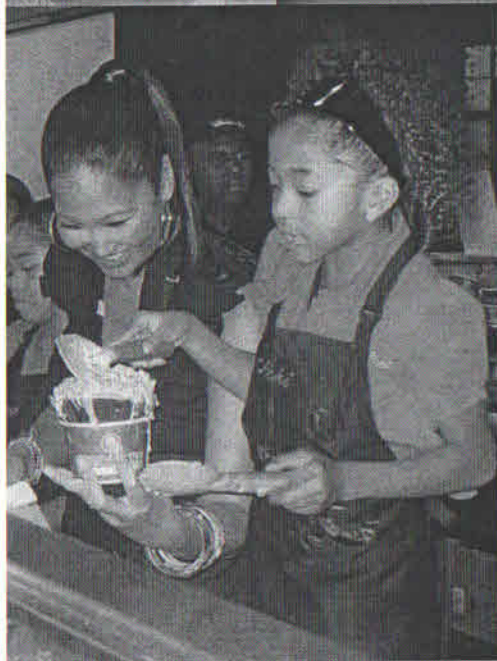


Disparities in Early Vocabulary Growth



Parent Talkativeness (not SES or race) predicted IQ & vocabulary

Hart and Risely



- Talkative families: 5-6 times more “praise chats” than “prohibitions”
- Taciturn families: more “prohibitions” than “praise”
- IQ (Stanford Binet) at 3 years correlated highly with “non-business” talk at 1 & 2 yo - explaining 61% of the variance in IQ
- PPVT (Receptive Language) at 3rd grade correlated highly with “non-business” talk at 1 & 2 yo – explaining 59 % of variance

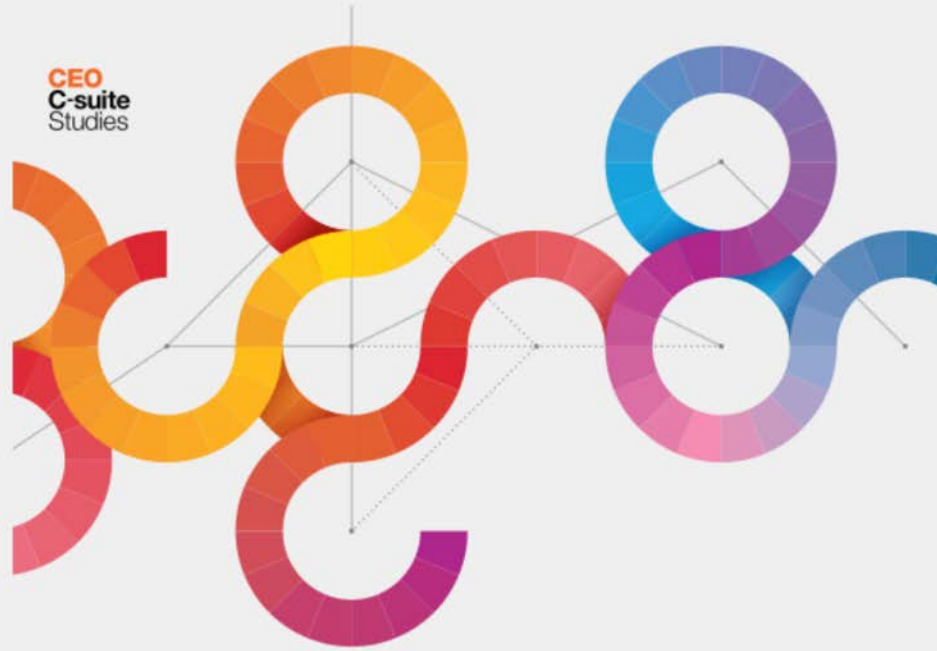
Promoting the Five R's of Early Childhood Education

- **READING** together - daily
- **RHYMING**, playing and cuddling
- **ROUTINES** – help children know what to expect of us - what is expected of them
- **REWARDS** for everyday successes – **PRAISE** is a powerful reward
- **RELATIONSHIPS**, reciprocal and nurturing- foundation of healthy child development





CEO
C-suite
Studies



Leading Through Connections

Highlights of the
Global Chief Executive
Officer Study



CREATIVITY

INNOVATION

COLLABORATION



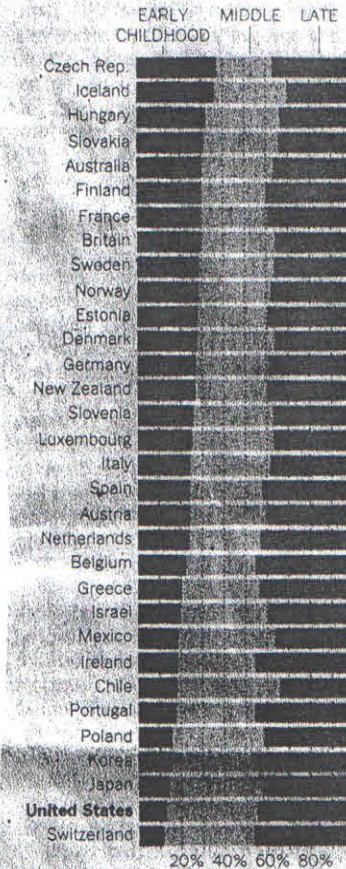


US Spending on Early Childhood

Starting Too Late?

Studies show that disadvantaged children gain the most from preschool attention. But government spending on the very young is much lower in the United States than in most other industrial nations.

Share of government spending on children



Source: Organization for Economic Cooperation and Development

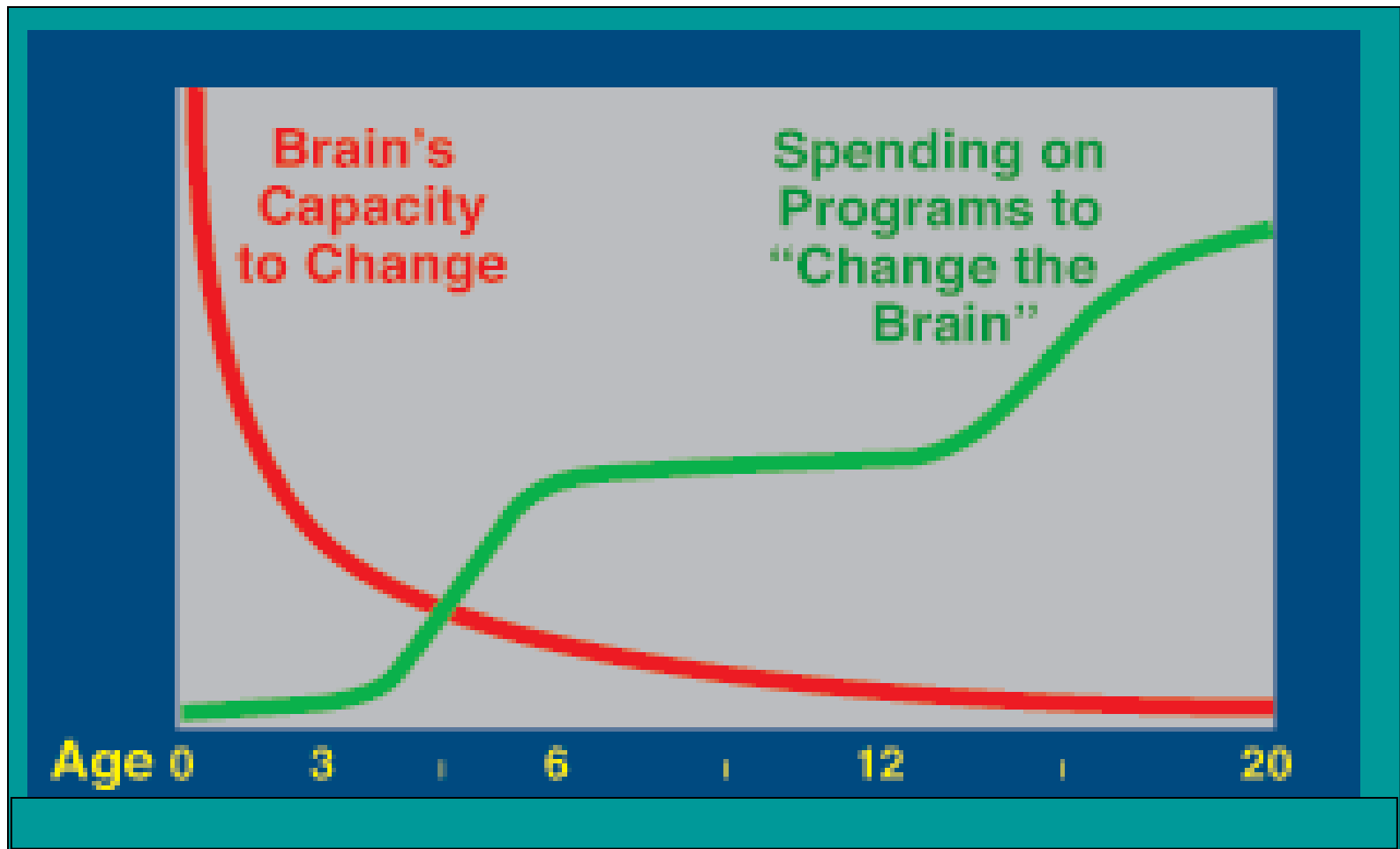
THE NEW YORK TIMES

Perry Preschool and Abecedarian Projects: An Update

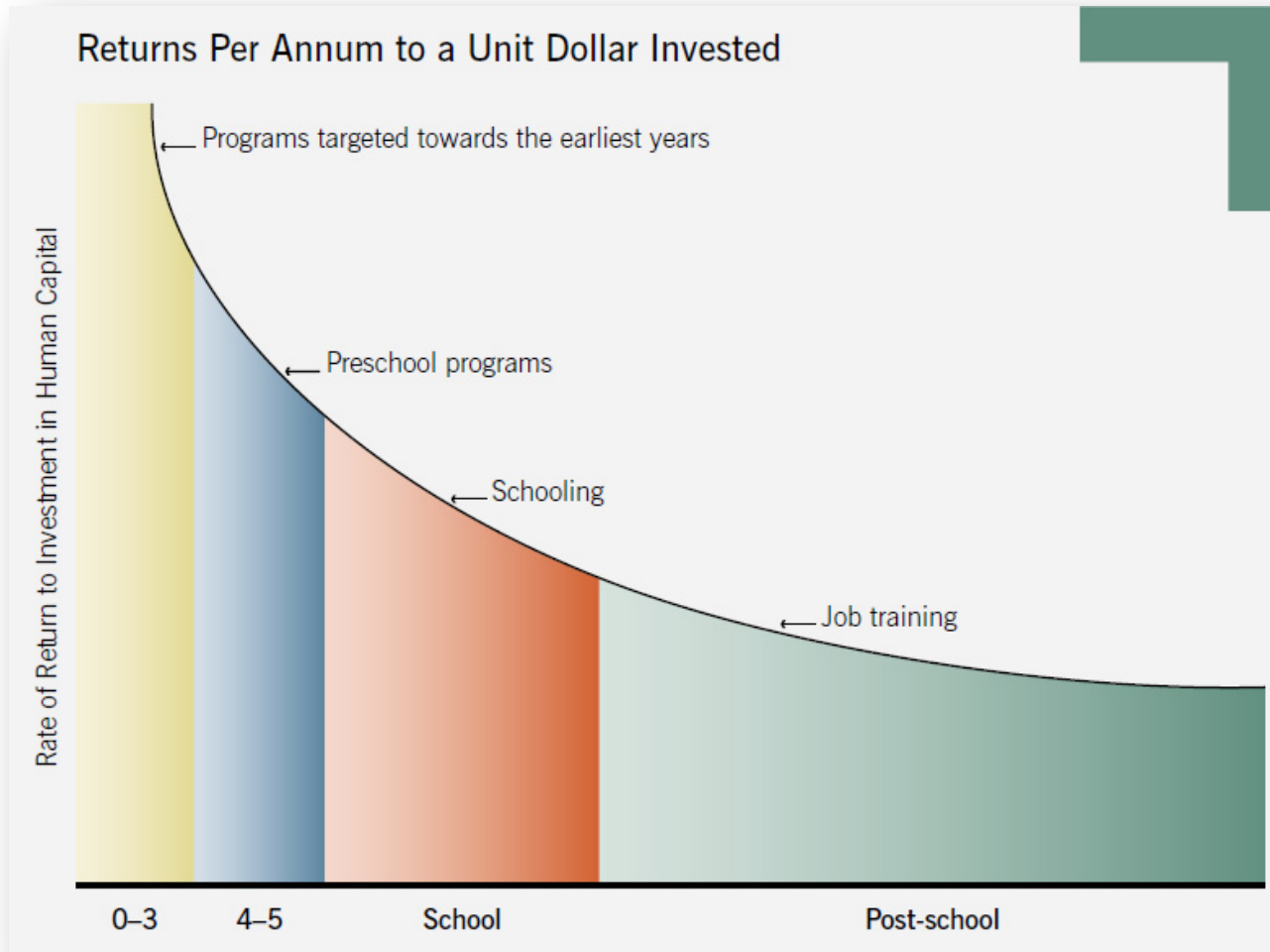


- Improved behavior/psychological functioning in Perry treatment group, associated with lower arrest, incarceration rates among males (Am Econ Rev, 2013)
- Lower rate of teen pregnancy, higher educational and employment status
- Follow up at age 30: substantially lower blood pressure, lower rates of metabolic syndrome (Abecedarian study, Science, 2014)

Public Investment in Children by Age



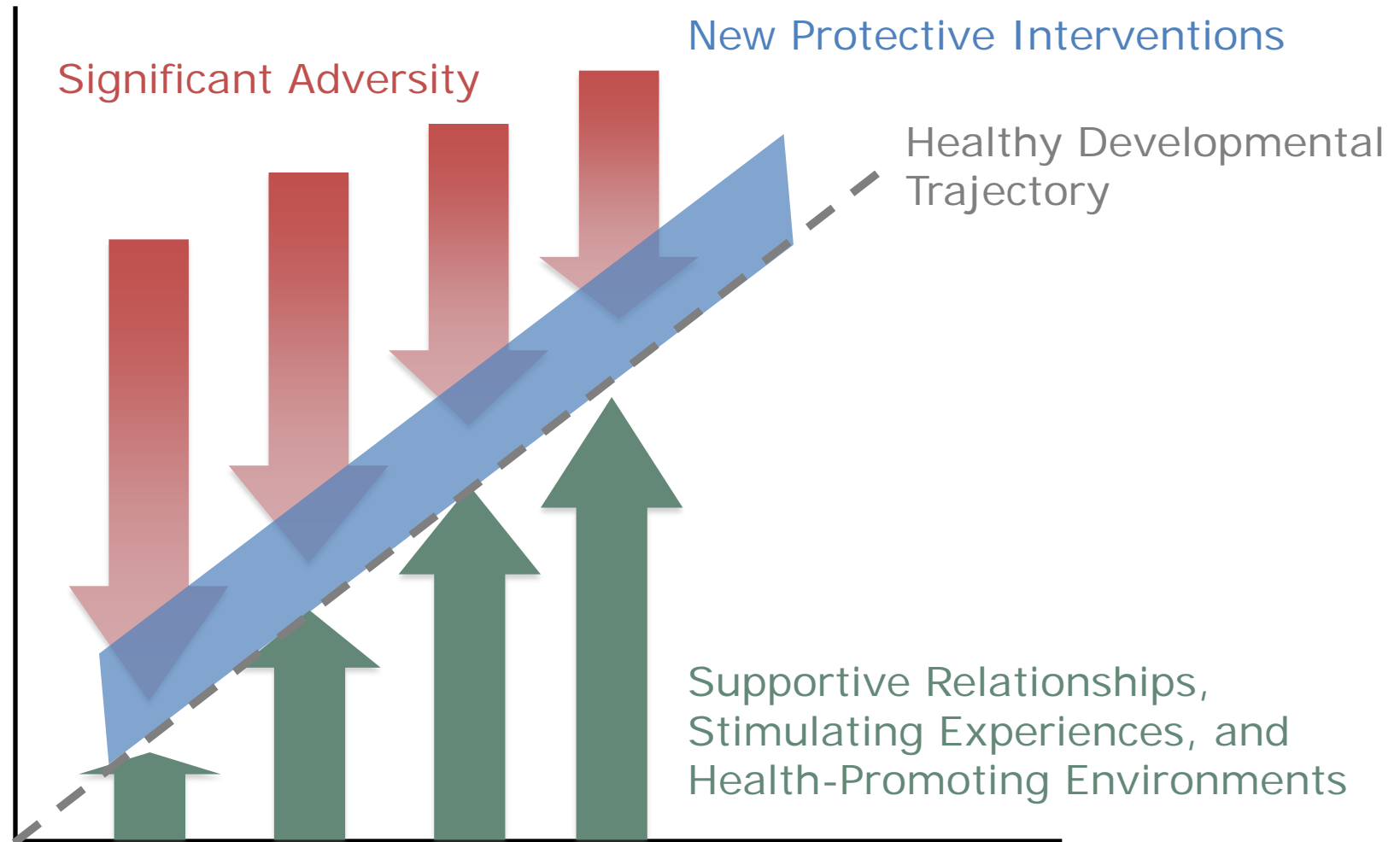
Heckman Equation



Annual return on
investment in
early childhood:
7-10%

(Heckman et al.)

Building an Enhanced Theory of Change that Balances Enrichment and Protection







PLAY

- MOMA: Century of the Child, 1900-2000

Play is to the 21st century what work was to industrialization; it demonstrates a way of knowing, doing and creating value.

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Name _____

Address _____

*Prescription
for Play*

Refill: 1

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3

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Daily

MD _____