Stories and Synapses
(and other literary whatnot)
2019 OLLI Brown Bag Lunch Presentation

Dr. John S. Hutton, (MS)² MD,
Assistant Professor General & Community Pediatrics
Director, Reading and Literacy Discovery Center
Cincinnati Children’s Hospital Medical Center
Founder, blue manatee press
Advisor, Blue Manatee Literacy Project
“Spokes-Doctor,” Read Aloud 15 MINUTES
Kids Who Start Behind:
The "30 Million Word Gap" (~1.4 million from books)

Words in Picture Books: Cat in the Hat (1626/223 unique), Where the Wild Things Are (336), Goodnight Moon (131), Goodnight Gorilla (10)
Feelings Sharing Picture Books: Too numerous to count...

And get left behind...

- 20% of high school seniors can be classified as being functionally illiterate at the time they graduate. (2)
- 70% of prisoners in state and federal systems can be classified as illiterate. (2)
- 85% of all juvenile offenders rate as functionally or marginally illiterate. (2)
- 43% of those with the lowest literacy skill live in poverty. (2)

Source: The National Right to Read Foundation (online)
Small Grownups?
A Bit of Background

✓ Reading and literacy are major public health concerns
  ✓ Low kindergarten readiness in reading (25-50%)
  ✓ Low 4th grade reading proficiency (64%)
  ✓ Dyslexia (5-17%)

✓ Frequency of “shared” reading at home is modest (< 15 min/day)
✓ Screen-based media use is prevalent and increasing (> 2 hrs/day)
✓ Major parental motivators for each are “learning” and “creativity”

➤ American Academy of Pediatrics (AAP) recommendations
  – Begin reading with children as soon as possible after birth
    • Cognitive, social-emotional, neurobiological benefits
  – Discourage and/or limit screen-based media
    • Potential cognitive, social-emotional, neurobiological risks
    • Encourage healthy alternatives (reading and play)

➤ World Health Organization recommendations (2019)
  – Discourage/limit screens under age 5
  – “Reading and storytelling with a caregiver is encouraged.”
Another Reality Check

PERCENTAGE OF PARENTS WHO SAY CHILD IS CURRENTLY READ ALOUD TO EVERY DAY

- Total 2016: 46%
- Total 2018: 42%

PERCENTAGE OF PARENTS WHO SAY CHILD IS CURRENTLY READ ALOUD TO EVERY DAY, FOR AT LEAST 15 MINUTES

- Total 2016: 34%
- Total 2018: 30%

Source: 2018 YouGov National Survey (representative sample, n= 1022)
How does reading develop?

“Emergent literacy”

Skills, knowledge, and attitudes that are developmental precursors to reading and writing.

• Skills
• Knowledge
• Attitudes
Recycling the Brain

- Reading = cultural invention
  - 6000 years old
- No hardwired brain network
- “Recycle” visual, language and other brain networks → emergent literacy
- Predictable sequence in typically developing readers
  - Books with pictures → no pictures (scaffolding)
  - “Recycling problem” → reading difficulties
    - Phonological, attention (ADHD), fluency
Firing and Wiring

'Sensitive periods’ in early brain development

Graph developed by Council for Early Child Development (ref: Nash, 1997; Early Years Study, 1999; Shonkoff, 2000.)
“Reading aloud is the single most important activity for developing the knowledge required for eventual success in reading.”

Studies 4 & 5: Influence of Story Format on Brain Network Connectivity in 3-5 y/o children

“Goldilocks Effect”
“Neurons that fire together, wire together.”

Nurturing cognitive stimulation during early childhood has a long-term impact on brain development and health.
Reading vs Screen Time and Brain White Matter Microstructure

More Reading: Stronger connections in language/literacy tracts

More Screen Time: Weaker connections in language/literacy tracts
Expanding Evidence: Reading Builds Brains

Home Literacy Environment
- “Shared” Reading

Quantitative
- Access to books
- Reading Frequency

Qualitative
- Interest
- Interactivity (Dialogic)

Featured in:
The New York Times
TIME
HUFFINGTON POST
npr
THE WALL STREET JOURNAL
WSJ
REUTERS

THE PUBLIC LIBRARY
of Cincinnati and Hamilton County

Every Child succeeds
Reach Out & Read
Get Ready to Read!
Interactive Reading: From Messy to Mastery

try·a·log·ic: oft-messy process of nurturing, exploring, sharing. Show up and do your best!

Infants/toddlers
- Pilot approach
  - SHARE/STEP
- Evidence building
  - Bonding
  - Print concepts
  - Early Language
  - Joint attention
  - Routines

Preschool/K-age
- Prompts & Responses
  - PEER/CROWD
- Evidence-based
  - Print concepts
  - Language
  - Attention
  - Enjoyment
  - Brain function

life·a·log·ic: read fun books together for a lifetime!

Independent readers
- Healthy & fun to read together at all ages
- Ever-more complex language, plots, themes…
- Topics of interest
- Slow down, unplug, connect!
1. Read Early and Often!
2. Try·a·log·ic (build routines) ➔ ➔ ➔ SHARE/STEP

SHARE-ing Books is an Important STEP for Babies!

The American Academy of Pediatrics recommends that parents begin reading with their babies as soon as possible after birth, when their brain is growing fast. Book sharing is a perfect way to build emotional connection, early language skills, and a healthy routine of reading. Developed by a pediatrician, the evidence-based SHARE STEP method shows how to get the most out of every wonderful opportunity!

- Snuggle on your lap.
- Hands On – let your baby hold the book and learn how it works.
- Affection - show your baby that reading together is love-ly!
- Respond to what your baby does:
  - T-r-e-a-t word sounds so your baby can learn them.
  - Talk about the pictures.
  - Explore new word sounds in fun ways.
  - Patience – if your baby gets frustrated, stay calm and keep trying.
- Enjoy – most of all, have fun!

Dr. John S. Hutton
Is a pediatrician and author from Cincinnati, OH. His research interests include reading, screen time and early brain development. He is passionate about the power of books to help children understand, imagine, learn, and grow.

Christina Brown
Is an illustrator from Lafayette, Louisiana. She loves baby everything, homemade cookies, and sleeping in late on Saturdays. SHARE This Book is her debut children’s book.

Written by Dr. John Hutton
Illustrated by Christina Brown

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3. Screen-free Until Three!
Baby Unplugged

Unplug and Play Every Day!
- Disconnect TV, computers, and other screen time until 2 years old.
- Two older kids and screen time 2 hours or less per day.
- Keep bedrooms screen-free for better sleep, reading, and playtime.
- Unplug during meals for talking and sharing in a family.
- Know what your children are watching, and watch together.
- Watch educational shows with positive messages.
- Encourage reading and traditional play - they're fun!
- Be a good role model and lead by example.
- All of these help build skills for success in school and life.

The first few years move fast — enjoy every unplugged moment together!

By Dr. John Hutton
Pictures by Sarah Jones

Illustration by Andrea Kang

By John Hutton
Illustrated by Andrea Kang
4. Make it fun!

→ → → *dialogic* reading.
DR Books!

WHERE IS THIS CAT SLEEPING?

ON A LAP!

LET'S SAY, "BLACK CAT ON GRANDMA'S LAP!"

DOGS!

COWS!

CATS!
5. Read together for a lifetime!
Thank You!

“Questions?”

Contact:
• John1.Hutton@cchmc.org
• press@bluemanateebooks.com