

Beyond the Classroom

Using Community-Based Interventions to
Improve Early Literacy & Math

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Our Game Plan

- Importance of early math & literacy
- Full-court press on literacy & math
 - Innovative non-classroom approaches
 - Connecting to community-based efforts
 - Engaging all adults
- Activity: Map it out!



What's Your Role?

- Teacher/child care provider
- Administrator/
Program director
- Special education provider
- Librarian
- Community volunteer
- Mental health provider
- Community program staffer
- Aunt/uncle/
grandparent
- Parent
- Neighbor

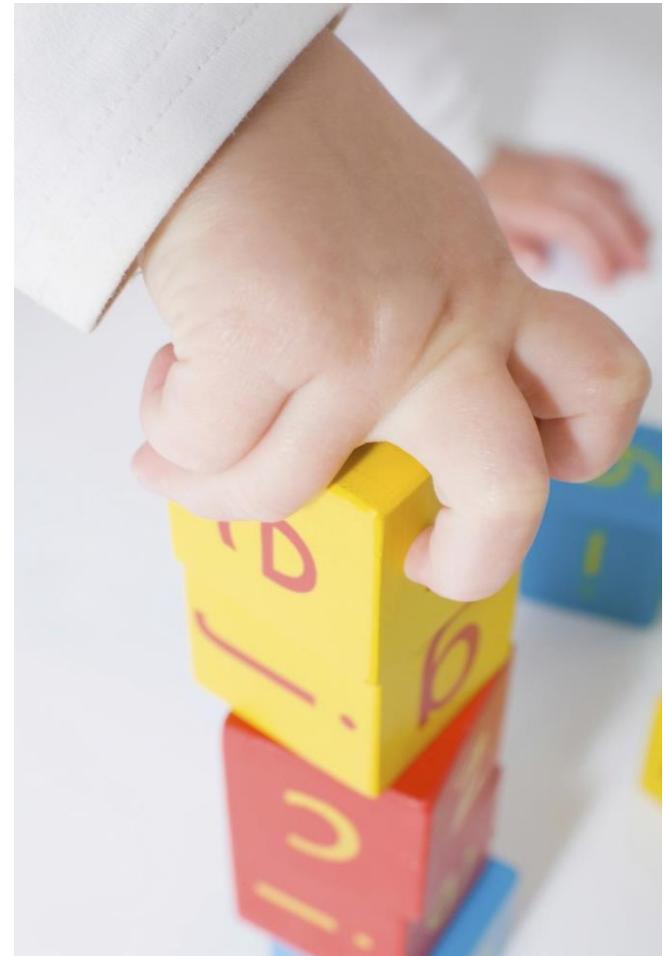


Importance of early math & literacy



Early literacy

- Children born with building blocks, not bridges
- Literacy is more than reading
- Social-emotional stimulation between caregiver and child



Components of Early Literacy



Oral language

Listening
comprehension

Oral language
vocabulary

Alphabetic Code

Alphabet
knowledge

Phonological/
phonemic
awareness

Invented spelling

Print Knowledge

Environmental
print

Concepts about
print

Early Literacy Builds Along a Trajectory

Early
literacy
skills

Literacy
in K and
1st grade

Third grade
–“learning
to read” to
“reading to
learn”

Higher
graduation
rate for
“moderately
skilled
readers” at
3rd grade

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Early Math Experiences

- Linked to later mathematics & literacy
- Adult as *facilitator* of curiosity vs. transmitter of knowledge.
- Engaging materials, either meant for math or everyday items
- Modeling “positive dispositions”
- Increasing *formal* and capitalizing on *informal* opportunities



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User Sarah Joy

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Concepts in Early Math

Numbers and Operations

Counting, composing, adding subtracting

Measurement

Length, weight, time, temperature, money

Algebra

Repeating and growing patterns

Geometry

Two- and three-dimensional shapes, spatial awareness

Data analysis

Sorting, graphing

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Full-court Press on Literacy and Math



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Key Aspects of Engagement

Building adult confidence

Adults are most effective teachers when they overcome own insecurities about material

Access to resources

Increase book ownership & utilization of every day materials for math and literacy

Opportunities to explore and reinforce

Neither classroom nor home environment *alone* will result in catalytic growth for kids

Where are families every day?

- Doctors' offices
- Libraries
- Family literacy
- Grocery stores
- Barbershops
- Laundromat
- In transit
- At home!

“Implementing simple, cost-effective interventions in everyday environments may bolster children's language development and school readiness skills.”

Kathy Hirsh-Pasek,
Temple University



Boston Basics

- Framework of five simple, fun areas for adults to engage with young children
- Whole-community effort to communicate and empower
- Spread well beyond Boston!



1. Maximize Love, Manage Stress



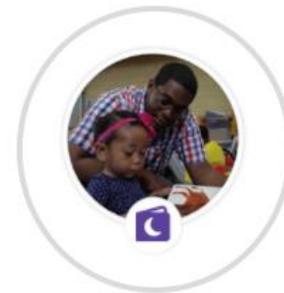
2. Talk, Sing, and Point



3. Count, Group, and Compare



4. Explore through Movement and Play



5. Read and Discuss Stories

Reach Out and Read



- Children receive age-appropriate book at well-child visits from birth-age 5
- Providers share guidance about literacy interactions with parents
- Builds on a trusted relationship and regular interaction before children are school-age



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Multnomah County Library

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Libraries and Museums

- Libraries offered 2.3 million programs to kids under 11
- Every Child Ready to Read: caregiver training - support literacy development
- Makerspaces: Museums, schools, libraries providing guided, hands-on STEAM experiences



Children's Museum of Manhattan
Creative Commons Flickr
User CaptainKidder

Grocery Stores



Flicker user [Jo Guldi](#), used under Creative Commons

- Signs to start language-rich conversation in grocery stores

I come from a cow.
Can you find something else
that comes from a cow?

- In low-income community, language-rich conversations increased by **33%**
- Low cost intervention: \$60

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Barbershops

- Barbershops as a key part of African-American men's culture
- Barbershop Literacy project in Cleveland: books are made available, volunteers read to children, and Barber Literacy Mentors
- Serve as connection to other community efforts, pre-K enrollment, etc.



Barbershop Literacy Project's Facebook page

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Laundromats

- Books to borrow, or swap
- Posters to encourage conversation about what's there
- Talk, sing, read
- Coloring & activity sheets
- Utilize family waiting time – and keep kids entertained!



Talk, read, and sing with your children—right from the start.
It builds their brains and prepares them for success in school and beyond.
For ideas, visit TALKINGISTEACHING.ORG

Too Small to Fail Talking is Teaching
Campaign Poster



Outdoor Experience

- Born Learning Trails
 - 10 outdoor games on posted signs to encourage caregivers
 - Public parks, near libraries and museums
- Bus stops in Philly – puzzles built into benches (Temple)
- Parkopolis: pilot in Switzerland, life-sized Board game with STEM and self-regulation activities





“The digital Wild West”

Apps

- “App stores” *do not* judge effectiveness

Ebooks

- Consider *supplementing* with e-books – not replacing paper books

Tech toys

- Allow room for imagination

Wearables

- From sleep monitor to “fitbit for words,” growing market

3C's (Lisa Guernsey)

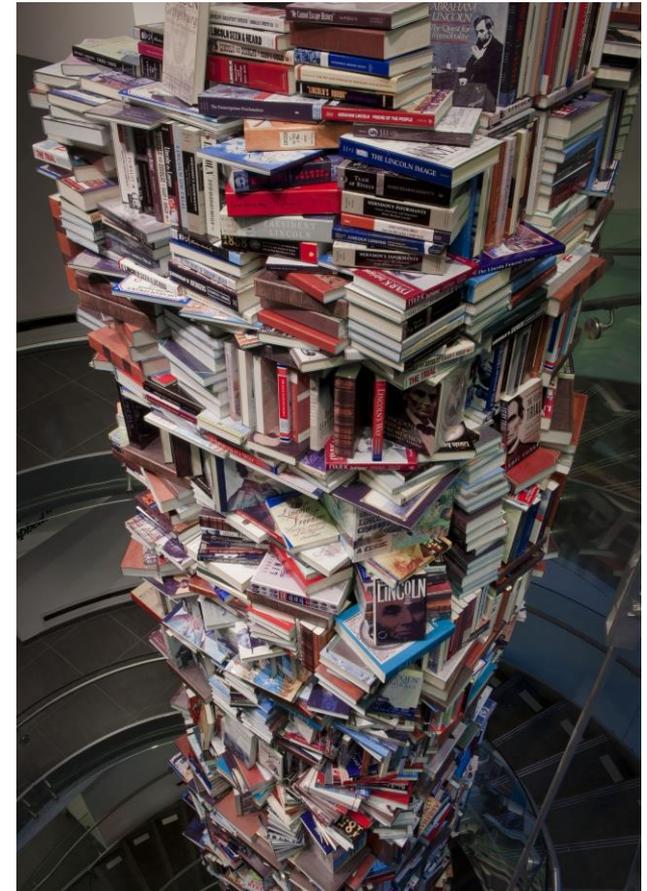
Content—How does this help children learn, engage, express, imagine, or explore?

Context—What kinds of social interactions alongside the use of the technology?

Your **child** – “what one child needs, developmentally, at one moment in time”

Lessons Learned

- Light touch programs can have short term impacts and “domino effects”
- Two-way communication - providers and parents **partners** in child’s development
- Multiple impacts beyond stated goals
- Population-based approaches can meet needs of at-risk families while reducing stigma



Ford's Theater Center for Education and Leadership

Via NPR

<https://www.npr.org/2014/04/24/306111111/reading-is-good-for-you>

Map it out!

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A day in the life of a family...



Good morning!

Breakfast

Car/Bus

Where are opportunities for literacy & early math their communities?

Car/Bus

Doctor

Laundromat

Grocery Store

Dinner time

Good night!