Beyond the Classroom

Using Community-Based Interventions to Improve Early Literacy & Math

Megan Carolan

Institute for Child Success
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
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
Concepts in Early Math

**Numbers and Operations**
- Counting, composing, adding, subtracting

**Measurement**
- Length, weight, time, temperature, money

**Geometry**
- Two- and three-dimensional shapes, spatial awareness

**Algebra**
- Repeating and growing patterns

**Data analysis**
- Sorting, graphing
Full-court Press on Literacy and Math
## Key Aspects of Engagement

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Building adult confidence</td>
<td>Adults are most effective teachers when they overcome own insecurities about material</td>
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<tr>
<td>Access to resources</td>
<td>Increase book ownership &amp; utilization of every day materials for math and literacy</td>
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<tr>
<td>Opportunities to explore and reinforce</td>
<td>Neither classroom nor home environment alone will result in catalytic growth for kids</td>
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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!
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
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
Grocery Stores

- 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
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
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!

Let’s listen to the sounds around us. What do you hear?

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
Map it out!
Good morning!

A day in the life of a family...

Where are opportunities for literacy & early math their communities?

Good night!