

# Evaluation Findings: Infusing Math into Preschool Services

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EMERSON COMMUNITY LIBRARY

MARCH 2022



# “Infusing Math into Preschool Services” Storytime Series

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- Outreach program — 8-session math-focused storytime series
- Offered at 10 Head Start centers located in the 3 communities with the lowest levels of library use within the county
- Program goals:
  - To engage 3-5-year-olds in math concepts and activities
  - To help Head Start teachers understand the importance of early math engagement, learn how to support early math engagement with math concepts and activities, and incorporate math concepts and activities in their work

# Evaluation Questions

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1. To what extent do volunteers implement math storytimes as designed?
2. In what ways do participating children demonstrate engagement and interest in math storytime sessions?
3. To what extent do participating children demonstrate basic math skills (counting, sorting, matching) (a) during math storytime sessions and (b) at home?

# Methods Used to Answer Evaluation Questions

Evaluation Questions	Data Collection Methods			
	Observation of volunteers during a sample of math storytime sessions	Interviews of Volunteers	Observation of children during a sample of math storytime sessions	Survey of children's parents and caregivers
To what extent do volunteers implement the math storytimes as designed?	X	X		
In what ways do participating children demonstrate engagement and interest in math storytime sessions?			X	
To what extent do participating children demonstrate basic math skills (counting, sorting, matching) a. during math storytime sessions, and b. at home?			X	X

# The Study

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Data collected in October-November 2021:

- Observations of 5 storytime sessions
- Interviews with 10 volunteers
- Surveys of 77 parents and caregivers

# Evaluation Question 1 — Key Findings & Conclusions

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To what extent do volunteers implement math storytimes as designed?

- Volunteers were successful in implementing reading and singing components
- Volunteers struggled to implement the math activities, especially in sessions 3 and 5

**Conclusion:** Math storytimes were implemented as designed to a moderate extent.

# Evaluation Question 2 — Key Findings & Conclusions

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In what ways do participating children demonstrate engagement and interest in math storytime sessions?

- Most children engaged in a variety of behaviors indicating engagement during storytime, such as:
  - Participating in songs and hands-on activities
  - Repeating presenters' words and phrases
  - Pointing to materials
  - Laughing and clapping their hands

**Conclusion:** The results indicate high levels of engagement among participants.

# Evaluation Question 3 — Key Findings & Conclusions

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To what extent do participating children demonstrate basic math skills (counting, sorting, and matching) (a) during math storytime sessions and (b) at home?

- Some children demonstrated basic math skills during storytime sessions in which volunteers implemented math activities as designed
- Few parents reported that children demonstrated basic math skills at home

**Conclusion:** The results are mixed and indicate that basic math skills need to be implemented as designed more consistently for children to demonstrate them.



# Recommendations

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1. Provide additional training and mentoring to volunteers to implement math activities
2. Revise the math activities in sessions 3 and 5
3. Create a handout to send home with parents that illustrates the basic math skills demonstrated during storytime

# Next Steps

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1. Share findings with children's department staff and administration
2. Complete the 3 recommendations (additional training, revising math activities, creating handout)
3. Conduct another round of observations to determine whether the math activities are being implemented as designed after additional training and activity revisions

# Lessons Learned

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1. The library needs more staff/volunteers to occupy children after storytime so that parents can complete surveys
2. The library needs to provide a Spanish version of any surveys administered at Head Start centers
3. Observations can be an efficient method for determining how programs are being implemented