INTRODUCTION

- In this study children were invited to tell reflective narratives immediately after their visit to Tinkering Lab at Chicago Children’s Museum.
- When children tell narratives immediately after an experience it can both reveal what they have learned, and extend that learning (e.g., Haden, Cohen, Uttal, & Marcus, 2016).
- The purpose was to understand what information children can recall based on a previously experienced event and how these narratives reflect children’s learning of science, technology, engineering, and mathematics (STEM).

PARTICIPANTS

- 77 children (37 females, 40 males)
- M age = 7.02, range 4 to 11 years
- 39% Caucasian/White, 16.9% Hispanic/Latino, 7.8% African American/Black, 3.9% Asian, 1.3% Other, 5.2% More than one race, 26% not reported

METHODS

- Children were presented with an engineering design challenge to make something that flies.
- Immediately after completing the challenge, narratives were elicited with the following questions:
  - What did you do in Tinkering Lab today?
  - How did you do it?
  - Did somebody help you? Tell me how you worked together.
  - Did you test your creation? Did it fly?
  - What did you learn today?

RESULTS

- Figure 1 shows the mean frequencies observed for total engineering, math, and science talk across all children in the sample:

  - Engineering talk
  - Math talk
  - Science talk

- The frequency of engineering talk was correlated with the frequency of math (r = .31, p < .05) and science (r = .53, p < .01) talk, but math and science talk were not (r = .35, n.s.). Child age was related to engineering (r = .29, p < .05), but not science (r = .30, n.s.) or math (r = .14, n.s.) talk.

FUTURE DIRECTIONS

- Next steps include observing families in the Tinkering Lab and examining linkages between family engagement during tinkering and children’s narrative reflections immediately afterward.