

C is for Cookie: Children's Emergent Understanding of Letters as Symbols

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ABSTRACT

Starting at an early age, children are often exposed to a variety of letter and number toys. How do we maximize the educational benefit of these toys? The purpose of the present study was to examine how children's play with concrete symbolic objects can help children begin to appreciate the symbolic properties of letters.

Fifty-four children, ages 46 to 56 months, participated in a guided symbolic task with letter toys. The results suggest that, while not all children seem to benefit from play with concrete symbolic objects, guided symbolic play with letter objects was particularly helpful for children with high letter knowledge.



QUESTIONS

- Will specific and symbolic play with concrete objects help children think about the symbolic properties of letters?
- How can concrete symbolic objects best be used to develop children's symbolic understanding of letters?
- Which children benefit most from symbolic play with concrete objects?

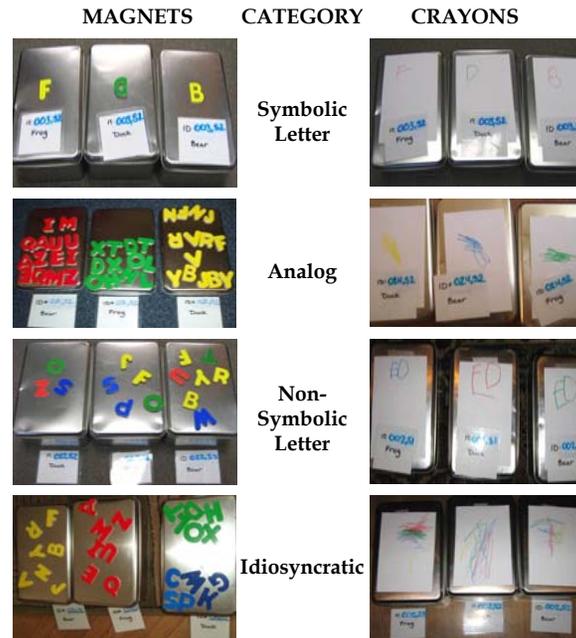
STUDY 1

- Participants: 32 children (16 male, 16 female), ages 46-56 months
- Design: two sessions in the home, over five days, with parent-led intervention in three days in between the sessions
- Assessments included tests of letter knowledge and symbolic knowledge
- Box Labeling Task: symbolic task to help children use letter toys as symbols

- Children put something on a box with either crayons or colored letter magnets to help them remember which stuffed animal (bear, duck, or frog) is inside each of the 3 boxes.



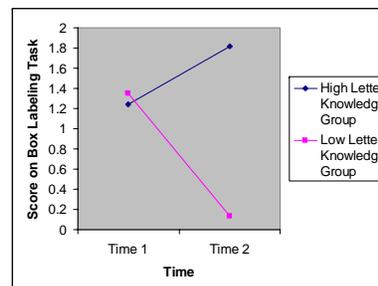
CODING



- Symbolic Letter & Analog representations were coded as a 1; Non-Symbolic Letter & Idiosyncratic representations were coded as a 0.

STUDY 1- RESULTS

- Children's overall performance on the Box Labeling Task did not improve following the guided symbolic intervention.
- However, children with high letter knowledge had higher scores than children with low letter knowledge, and they were able to improve their Box Labeling scores at each trial.



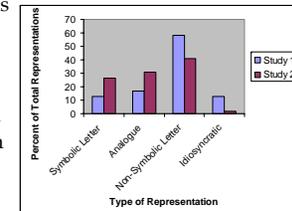
STUDY 2

- Very few children in Study 1 created Symbolic Letter representations. Study 2 was designed to compel children to use *letters* as symbols for the objects hidden in the boxes.
- Participants: 22 children (10 male, 12 female), ages 50-56 months
- Design: one session in the lab
- Box Labeling Task: Toy fruits and vegetables of the same color were hidden in the boxes. The children used colored letter magnets to remember which object was in each box.



STUDY 2- RESULTS

- For this study, only Symbolic Letter representations were coded as a 1.
- Again, children with high letter knowledge scored higher than children with low letter knowledge, and their scores increased with each trial.
- Children in Study 2 used more Symbolic Letter representations than children in Study 1, but the difference was not significant.



CONCLUSIONS

- Children highly familiar with letters benefited the most from specific, symbolic play with concrete symbolic objects.
- The knowledge gained from interacting with concrete objects may lead to a greater appreciation that letters are symbols.
- Although children can have difficulty understanding and learning from concrete symbolic objects, concrete objects can enhance learning and future research should continue to investigate the most beneficial ways to achieve this goal.

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