Caregiver Implementation of Reading to Engage Children with Autism in Language and Learning (RECALL)
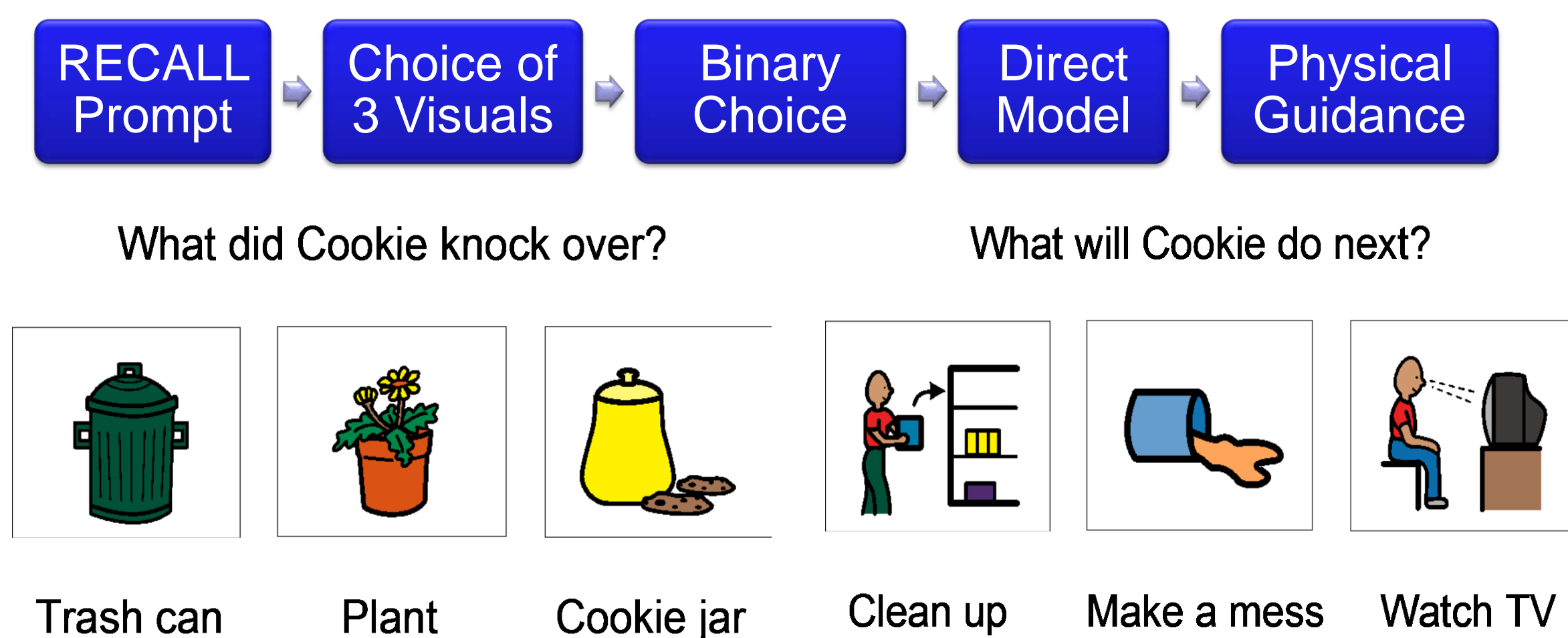
Background

- This study attempted to extend the findings of a previous study demonstrating the effectiveness of RECALL (a shared reading intervention) on the emergent literacy and language skills of young children with ASD.
- Currently, there are no studies investigating the impact of caregiver implemented shared reading on young children with ASD.

Research Questions

- What is the impact of caregiver-implemented RECALL on the correct responding of children with autism spectrum disorder (ASD)?
- To what extent do caregivers implement RECALL with fidelity?

RECALL

- Dialogic reading (an evidence-based shared reading intervention) is the foundation of RECALL
- In addition to the components of interactive shared reading, RECALL adds
    – Prompts to establish joint attention
    – Visual supports to aid receptive/expressive language
    – Systematic instruction through a prompting hierarchy

RECALL Prompt → Choice of 3 Visuals → Binary Choice → Direct Model → Physical Guidance

What did Cookie knock over? — Trash can, Plant, Cookie jar

What will Cookie do next? — Clean up, Make a mess, Watch TV

- The study began with 4 caregiver/child dyads
- 1 child was able to participate in RECALL as designed

Jessica and Jayden

- Descriptive Measures (mean = 100; SD = 15)
    - Test of Preschool Early Literacy (TOPEL)
        - Jayden scored in the average range on all subtests except Definitional Vocabulary (70; 2 SDs below the mean)
    - Preschool Language Scales (PLS-5)
        - Jayden scored > 2 SDs below the mean on all subtests and the Total Language Score (64)

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Results

- Jessica implemented RECALL as intended
    - 93% (75-100%) on a caregiver checklist
    - Self-report indicating greater consistency and comfort over time
- Jessica reported the intervention had a large impact on her and Jayden's shared reading behavior
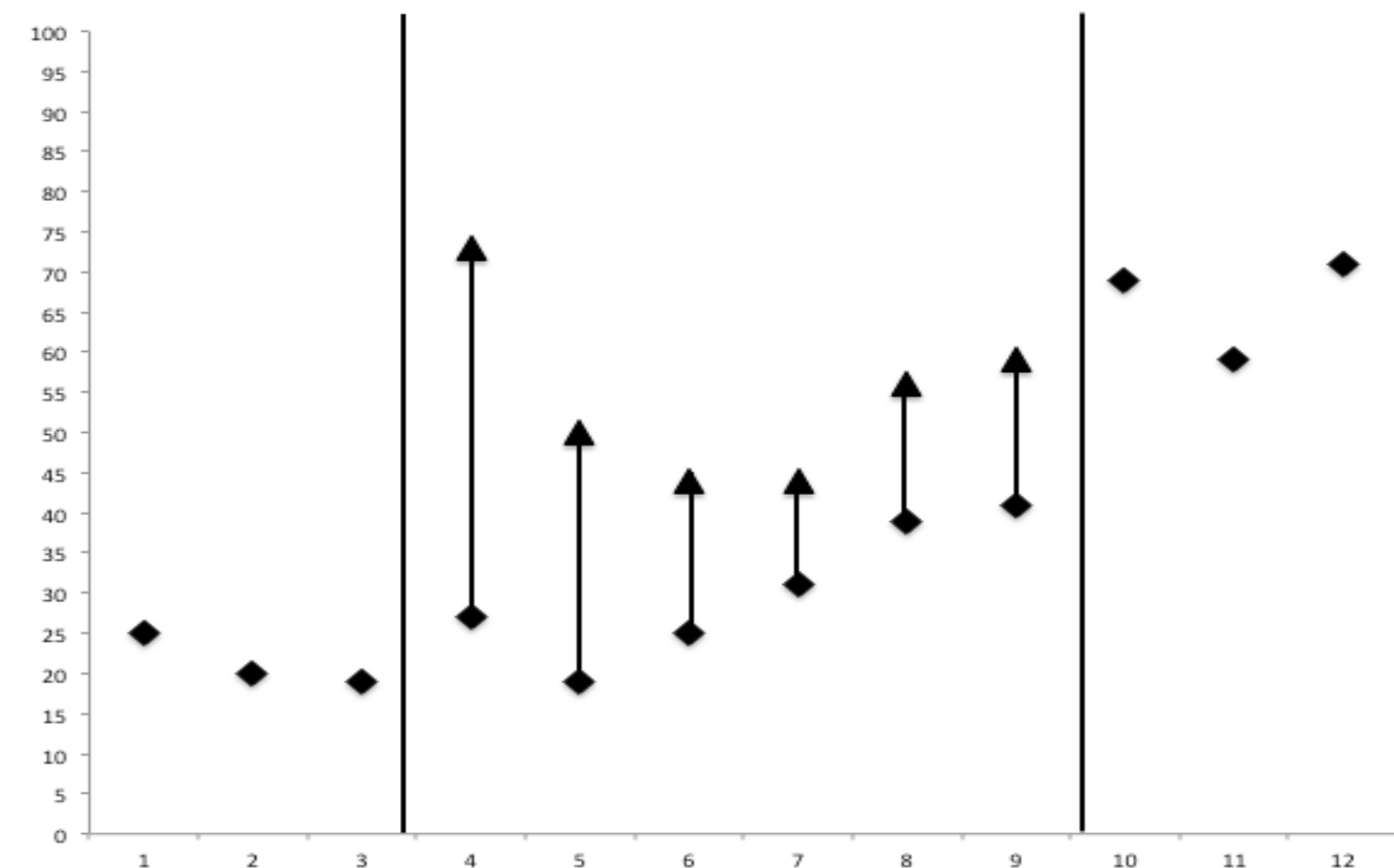

- In baseline, Jayden's percentage of unprompted correct responses averaged of 21%
- During intervention, Jayden's average percentage of unprompted correct responses rose from 30% at pre-test (19-41%) to 54% (44-73%) at post-test
- Jayden maintained his gains in the follow-up phase
- The percentage of overlap (NAP = 1.0) suggested no overlap between pre- and post-test scores

Phase	Fact	Inference	Open
Pre-baseline	24%	17%	22%
Pre-tests	33%	17%	39%
Post-tests	72%	33%	67%
Maintenance	74%	56%	67%

- Jayden increased his responding to fact, inference, and open ended questions

Adaptations

- Unable to obtain accurate descriptive testing results for 3 children
- At pre-test, children were unable to use visual supports to respond to caregiver questions
- Books and instructional procedures were further adapted to teach learners picture symbol correspondence
- 1 of 3 caregivers implemented the intervention as intended for 6 weeks
- Focal child began verbalizing and using symbols to respond to caregiver questions
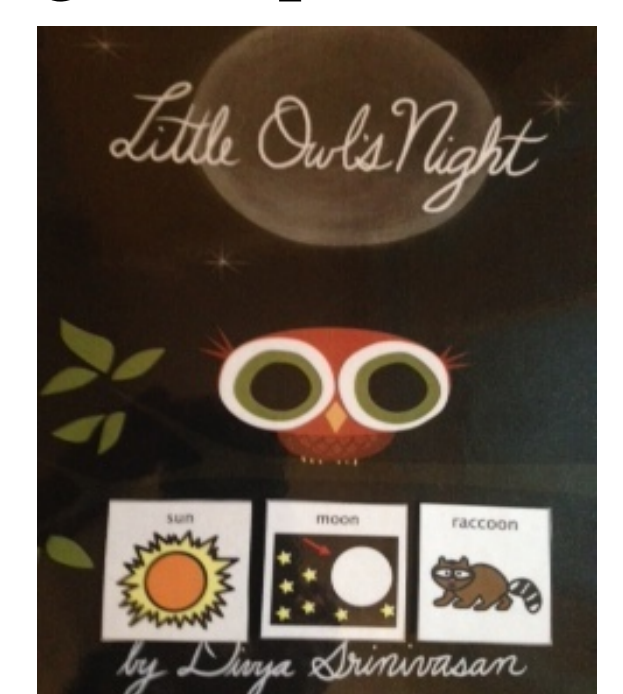
Future Research

- Conducting summer single case research design studies with more participants to continue to hone intervention
- Conducting single case research design study in preschool settings
- Plans to submit NIH grant