

Introduction

A parent-mediated matrix training program was implemented to teach a child with autism to tact noun-verb combinations using an speech-generating device (SGD) across both taxonomic (grid-based) and schematic (topic-based) system displays. The participant's mother was trained to fidelity via TeleHealth by a Board Certified Behavior Analyst (BCBA)

Is matrix training effective for AAC users?

- Teaching children with Autism Spectrum Disorder (ASD) to acquire new language through generative teaching strategies is a critical aspect of applied behavior analysis (ABA) programs
- While numerous studies have evaluated the effectiveness of this instructional strategy, few have demonstrated its use for augmentative and alternative communication (AAC) users

Can parent-mediated intervention be used?

- Lack of available clinicians can be a barrier to parents accessing ABA services for their children who require or benefit from services
- Virtual training and consultation via TeleHealth can provide a solution to families who cannot directly access clinicians

Methods and Materials

<i>Matrix 1</i>	Mom	Dad	Sister
Eating	Mom eating	Dad eating	Sister eating
Laughing	Mom laughing	Dad laughing	Sister laughing
Walking	Mom walking	Dad walking	Sister walking

Figure 1: Matrix One

3 x 3 matrix with nine targets. Bolded words include nouns and verbs. Purple words (diagonal) indicate targets taught directly. Black words (non-diagonal) indicate targets tested without direct teaching.

- iPad (SGD hardware) with the Linggo Learner application (SGD software)
- Two laptops with Zoom (software platform)
- 18 stimuli arranged in a 3 x 3 matrix with known components
- Discrete trial training (DTT) program using prompting, reinforcement, and error correction
- 26-28 step procedural fidelity checklist
- Probe and trial by trial data collection



Scan for more information

Results and Conclusions

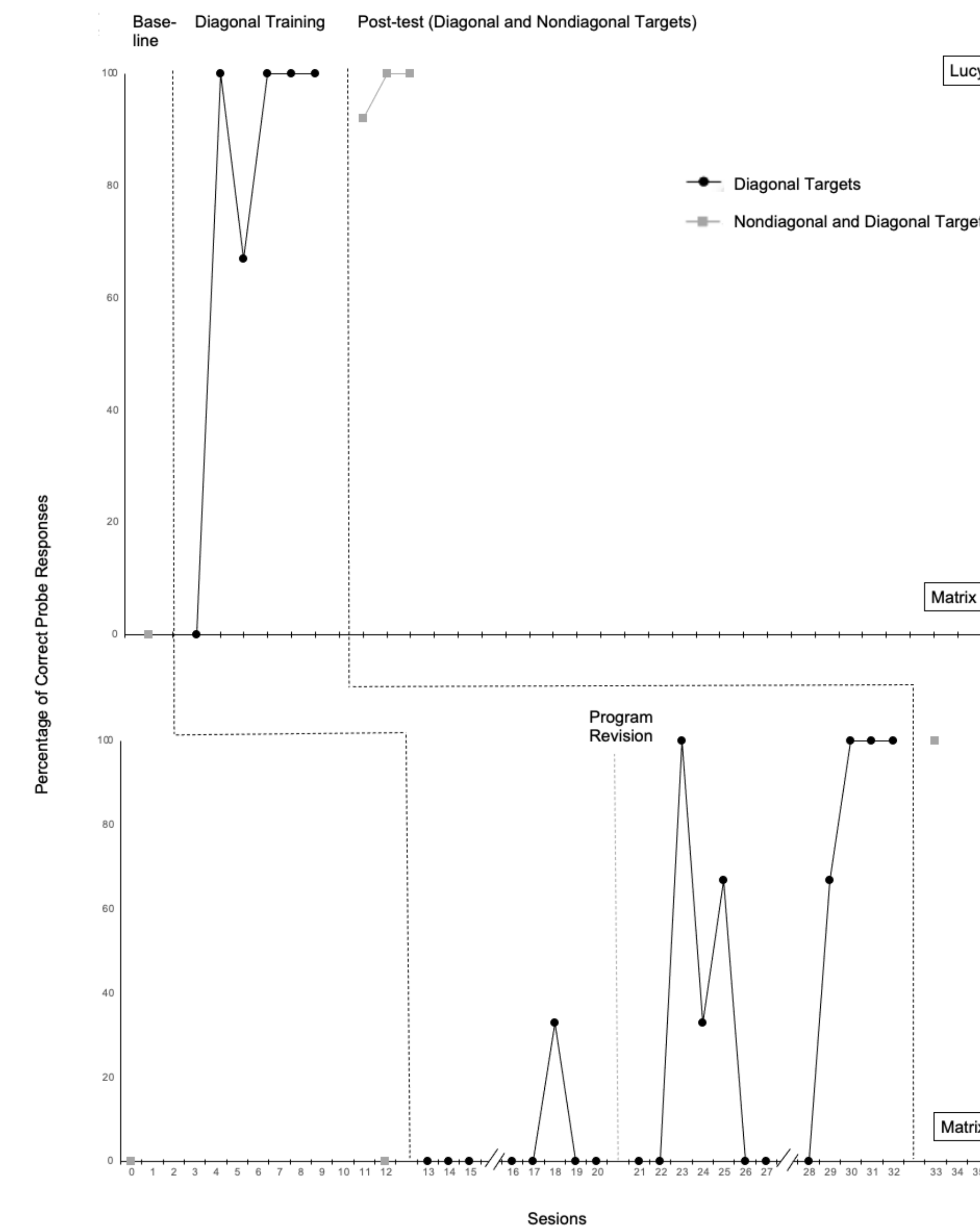


Figure 2: Matrices One and Two

The percentage of correct noun-verb tact responses prior to and during parent-mediated matrix training within two matrices for an individual child with Autism Spectrum Disorder (ASD).

6 Directly taught noun-verb combinations → **12** Untrained noun-verb combinations acquired

3 30-minute training sessions → **94%** treatment fidelity checklist

The positive results indicate that further research should be conducted on the use of matrix training to expand the tact repertoires of children who use SGDs.

- Replicate with a larger sample size
- Compare other efficient teaching procedures (e.g. multiple exemplar training) with matrix training (e.g. duration, rate of acquisition)
- Compare taxonomic with schematic system designs
- Evaluate the efficacy of non-diagonal training approaches
- Evaluate generalization to novel settings, people and/or targets

References, Acknowledgement, and Contact Information

Thank you to the family for dedicating your time to participate!

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