LOGAN WURSTER

• Major: Behavioral sciences
• Minor: Sociology and Arabic
• Area of Interest: Autism
• Plans for Future: Attending graduate school for a Master’s in behavior analysis
INCREASING VOCALIZATIONS AND ECHOIC STIMULUS CONTROL

Logan Wurster
Shannon Rupnow
Key Terms

• **Echoics**: The response produces a sound pattern that is similar to that of the prior stimulus

• **Shaping**: reinforcing successive approximations of the target behavior

• **Reinforcement contingency**:

   - **Before**: no edible
   - **Behavior**: emit appropriate vocalization/echo correct sound
   - **After**: edible
Goal of Intervention

- Problem: low rate of vocalizations and echoic stimulus control
  - Can cause problem behavior
  - Can stifle independence
- Need of intervention: increase rates of vocalization and echoics with children with little of each in repertoire
  - Little research done with children with low vocalization rates
Participants

- Inclusion criteria: low rates of vocalizations and echoic stimulus control
- Exclusion criteria: high rates of vocalizations and echoic stimulus control, vocal-verbal behavior curriculum already in place
Participants

- Eli: three-year-old male diagnosed with a speech delay
- Cameron: two-year-old male diagnosed with autism
- Robert: four-year-old male diagnosed with autism
Baseline

- Observations of sounds emitted before intervention
- Early Echoic Skills Assessment (EESA) pre-test
Shaping Vocalizations: Eli

Frequency of Sounds Per Minute

Sessions

Closed mouth sounds

Opened mouth sounds

BL
Increasing Vocalizations: Cameron

Frequency of Sounds Per Minute

Sessions
Phase 1

• No demands

• Reinforce any appropriate vocalizations

• Ignore any inappropriate vocalizations

• Phase change criteria: 3 appropriate vocalizations per minute for three consecutive sessions
Shaping Vocalizations: Eli

Phase 1

- Closed mouth sounds
- Open mouth sounds

Frequency of Sounds Per Minute

Sessions
Increasing Vocalizations: Cameron

Frequency of Sounds Per Minute vs. Sessions

BL P1
Phase 2

• No demands
• Reinforce any appropriate, novel vocalizations
• Ignore any inappropriate or dominant vocalizations
• Phase change criteria: three high rate sounds (more than three sounds per minute) throughout phase 2
Increasing Vocalizations: Cameron

- BL
- P1
- P2

Graph showing frequency of sounds per minute over sessions from 0 to 34.
Phase 3

- Place demand
  - “Say (target sound)”
- Reinforce correct sound following demand
- Ignore no responses, incorrect sounds following demand, and sounds preceding demand
- Phase change criteria: 80% or more correct for three consecutive sessions
Cameron: Phase 3 "Ah"
Discussion

- Eli and Cameron increased vocalizations emitted per minute

- Neither participant increased echoic stimulus control
Discussion

- Limitations
  - Early termination
  - Possible apraxia of speech
  - Self-injurious behavior (SIB)
Future Directions

• Run procedure for longer time period
• Implement SIB extinction
My Experience

• What I Learned
  • Early intensive behavioral intervention skills
  • Collecting data
  • Writing skills
  • Graphing skills
• Thank you to my mentor, Shannon Rupnow!
QUESTIONS/COMMENTS?