A Case Study on Play-Based Intervention for Improving Language Outcomes in a Nonverbal Preschool Child within the Classroom Setting

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Introduction

• Classroom-based intervention (CBI) is a naturalistic environment to provide therapy and collaborate with the teacher, to incorporate speech and language goals along with the classroom lesson to generate carry-over of skills.

• Research has indicated that when SLPs collaborate with teachers that outcomes in children can be improved (Throneburg, Calvert, Sturm, and Paramboukas, 2000; Valdez & Montgomery, 1997).

• Ingresoll et al. (2012) found play-based intervention allows learning to happen through social interactions to increase intentional language use and understanding.

• Language facilitation techniques can be used to increase language learning and communication in children with communication difficulties and, more importantly, can be modeled and taught to classroom teachers and other support personnel (classroom aides or paraprofessionals) by SLPs. These include: mirroring, self-talk, parallel talk, vocal/manual monitoring and reflecting, expansion, and modeling (Paul & Norbury, 2012).

• The purpose of this case study is to show how collaborative classroom-based intervention provided in classroom settings is a viable way to meet the language needs of nonverbal preschool children in naturalistic settings.

• The following case study of a nonverbal preschool child used observations and data from the collaborative classroom-based therapy, provided by a graduate student clinician in speech language pathology.

• The treatment was administered in line with the child's IEP goals and is provided as a demonstration of how one can improve a child's language through play-based intervention and use of language facilitation techniques.

Case History

Age in Years	4 years, 5 months
Gender	Female
Grade	Preschool
IEP Qualifying Category	Preschool Child with a Disability
IEP Goals	
Goal 1: Increasing basic attention skills	
Goal 2: Increasing basic receptive language skills	
Goal 3: Increasing basic expressive language skills	

Behavioral Observations

Settings	Observations
Music Time	• Enjoyed dancing to music • Would often dance by herself
Circle Time	• Stare at the wall • Hum to herself
Free Time	• Would pick simple puzzles • Wouldn't engage with other students
Special Settings (zoo, graduation practice)	• Produce more vocalizations/utterances when interacting with a verbal student
Overall	• Decreased eye contact • Decreased attention skills and understanding/use of language • Decreased awareness of those around her

Results

Intervention Description:
• Play-based intervention used in the classroom along with language facilitation techniques
• 12 interactions in the classroom over the span of five months
• Average time spent with student in the classroom – 15 minutes
• Student-directed activities

Number of Minutes Goals were Targeted across Sessions

CCBI activities provided in the classroom alongside goals and strategies

Activity	Goals Targeted	Language Technique and Examples
Puzzle (Letter, Alphabet, Animal)	(Goal 1) Eye contact, Attend to task (Goal 2) Respond to "point to" (Goal 3) Use language, verbalize	Self-talk, "I'm putting the cat in the puzzle" Parallel talk, "You're putting the letter 'A' in the puzzle"
Game (Connect 4)	(Goal 1) Eye contact (Goal 2) Hand objects upon request (Goal 3) Use language, verbalize	Parallel talk, "You're dropping the red piece in the game"
Instrument (Drums)	(Goal 1) Eye contact, Attend to task (Goal 2) Turn head to sound source	Mirroring, *Child's banging* Self-talk, "I'm playing the drums" Parallel talk, "You're making music with the drums"
Magnetic Color Sorter	(Goal 2) Respond to "point to" (Goal 3) Use language, verbalize	Parallel talk, "You're putting all the blue marbles in the blue paint can." Self-talk, "I'm putting the pink marbles in the pink paint can." VMR, *C:* "Red" *A:* "Red"
Circle Time	(Goal 1) Eye contact, Attend to task (Goal 2) Respond to name (Goal 3) Use language, verbalize	Mirroring, *Child's clapping*
Plastic Food	(Goal 1) Eye contact, Attend to task (Goal 2) Hand objects upon request, Respond to "point to" (Goal 3) Use language, verbalize	Self-talk, "I'm eating the apple." Parallel talk, "You're cooking the food"
Doll House	(Goal 2) Hand objects upon request (Goal 3) Use language, verbalize	Mirroring, *Child's doll movements* Parallel talk, "You're putting the baby to sleep." Expanding, *C:* "baby" *A:* "The baby lives in the house"
Turtleback Zoo	(Goal 1) Eye contact (Goal 2) Turn head to sound source, Respond to "point to" (Goal 3) Use language, verbalize	Expanding, *C:* "lion" *A:* "The lion is big" Parallel talk, "You're looking at all the animals."
Jumping/Blowing Cheeks	(Goal 1) Eye contact, Attend to task (Goal 3) Use language, verbalize	Mirroring, *Child blowing up cheeks* Parallel Talk, "You're jumping up and down"
Book	(Goal 1) Eye contact (Goal 2) Respond to "point to" (Goal 3) Use language, verbalize	Modeling, *C:* "dog" *A:* "That animal says woof." Self-talk, "I'm turning the page."

Summary

Conclusions
• Student's attention and language skills increased as a result of play-based intervention and use of facilitation techniques during classroom-based therapy
• Opportunity to target multiple speech and language goals were present during CBI
• Able to build rapport with student and classroom teacher to support carryover of speech and language goals
• Able to generalize skills across multiple settings and conversation partners

Implications
• Collaboration with classroom teachers to target speech and language goals and also support classroom curricula
• Pull-out therapy and collaborative-based therapy should be used to target speech and language goals to support academic success
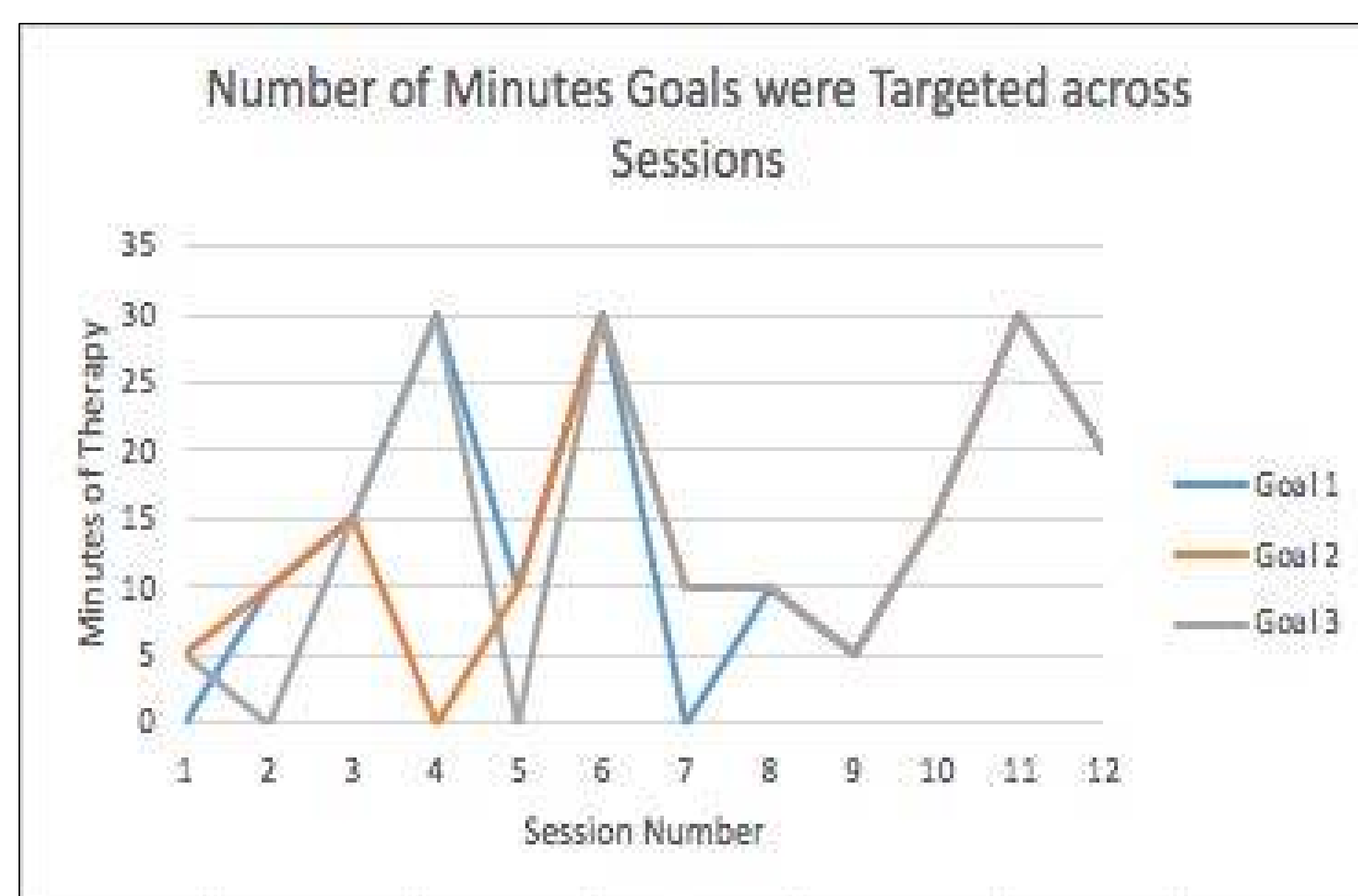
Limitations and Future Directions
• This is a case study so only the feasibility of the approach can be discussed.
• Continue to study the effectiveness of play-based intervention in the collaborative classroom-based environment for speech and language treatment.

Reflection

Collaborating with classroom teacher allowed the clinician to target SLP goals and classroom lessons, as well as build a good relationship to come into the classroom and work with the student without disrupting the teacher. It was beneficial to be able to discuss with teacher and paraprofessionals about the language facilitation techniques in order to encourage increasing language skills when the SLP is not in the classroom.