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Child Phonology: Dynamic Assessment of Speech Adaptability



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Introduction

- Speech-language pathologists help children with speech sound disorders learn to say sounds like their peers.
- The purpose of this study is to determine how a child’s speech changes during treatment when given help.
- Traditionally, measurements of children’s speech sound productions have only been assessed providing no help.
- This study is one of the first to evaluate a new assessment that measures the amount of help needed for children to be successful in producing speech sounds.
- Hard sounds, or sounds that were particularly difficult for the participant to say were evaluated and compared to progress made on easier sounds targeted later on in treatment.

Research Questions

- 1.) How does a child’s speech sound production change over time during treatment given successive administrations of an assessment with help, the Glaspey Dynamic Assessment of Phonology?
- 2.) Is there a relationship between treatment target selection and the amount of progress made toward hard sounds?

References & Acknowledgements

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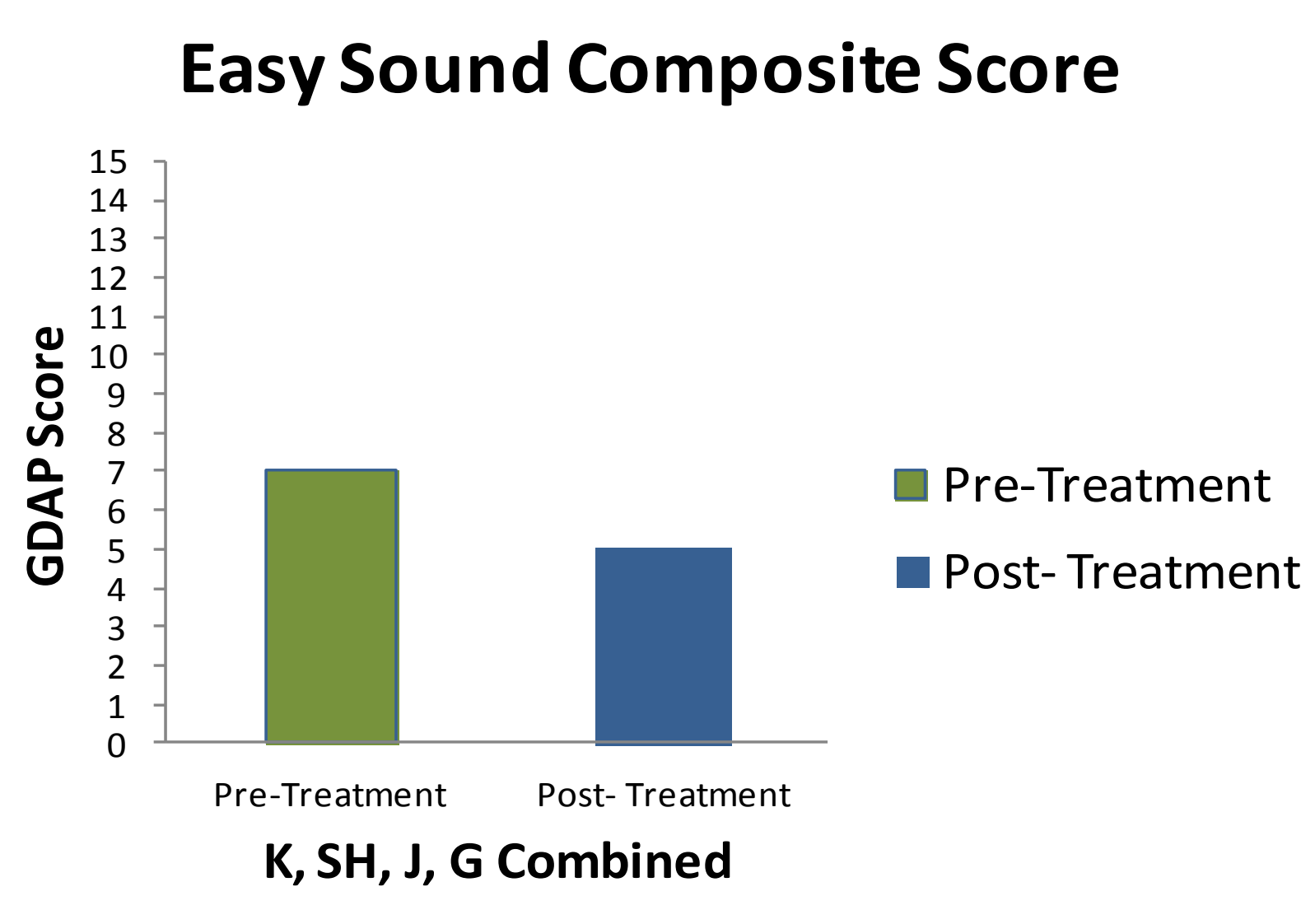
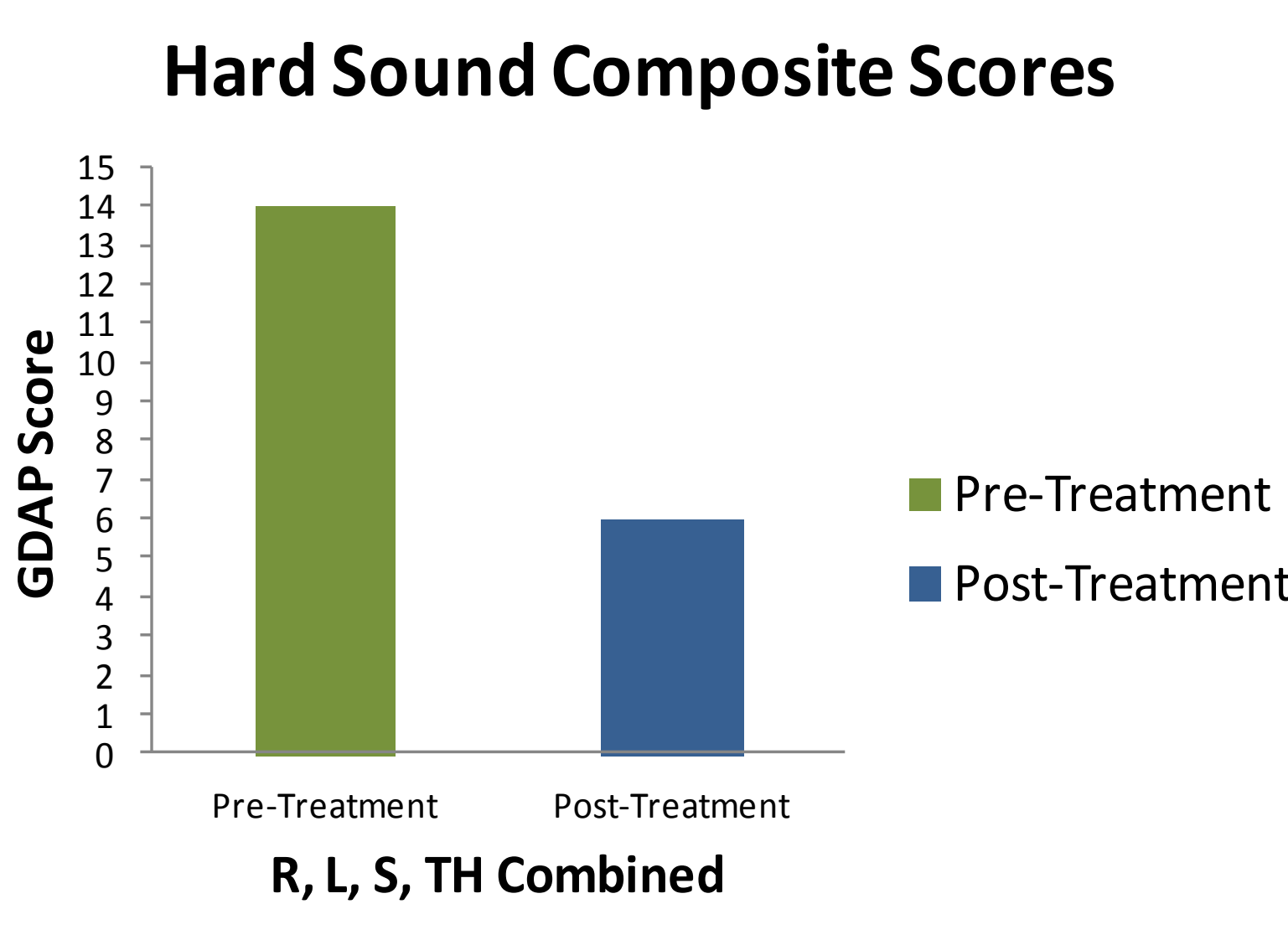
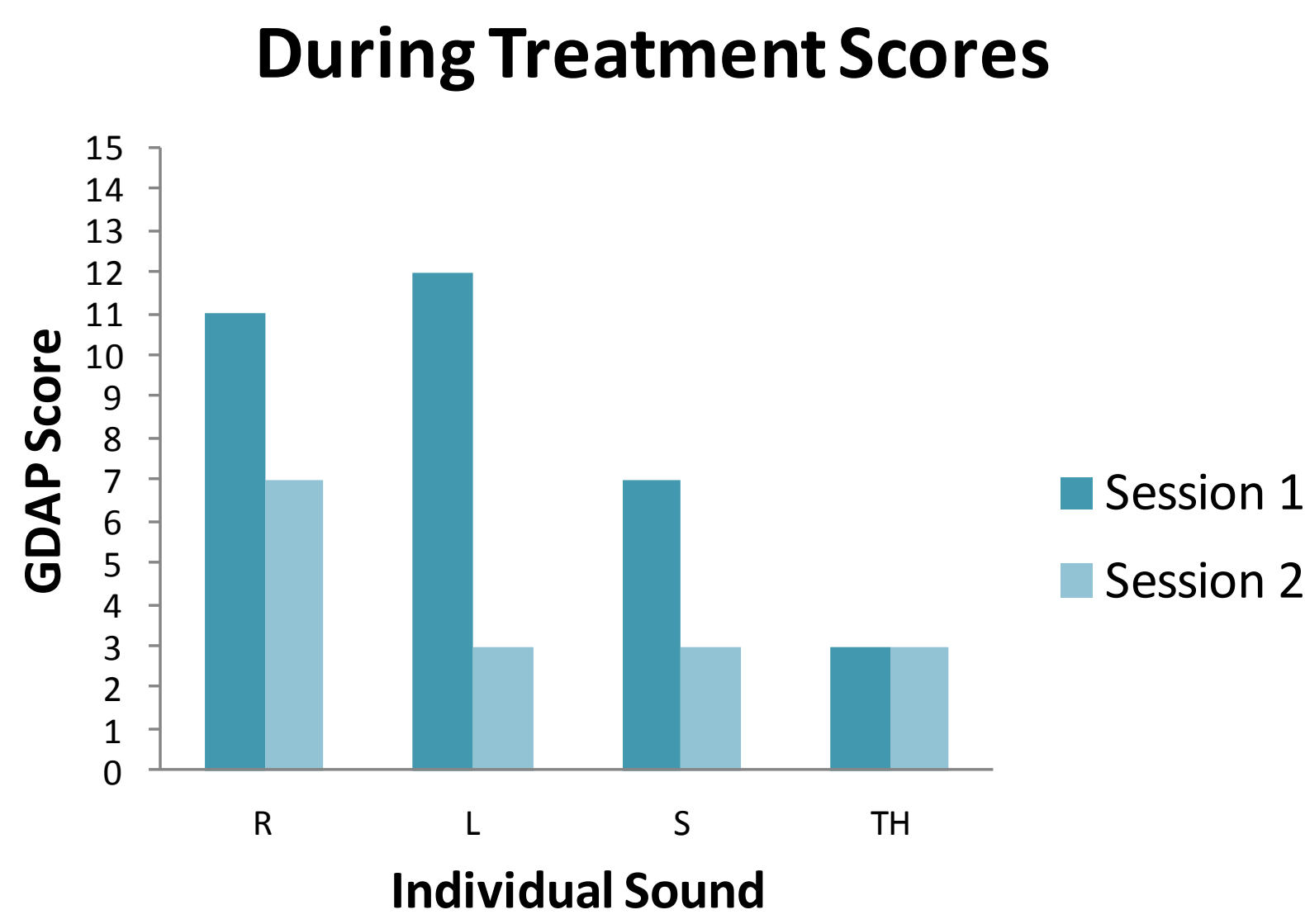
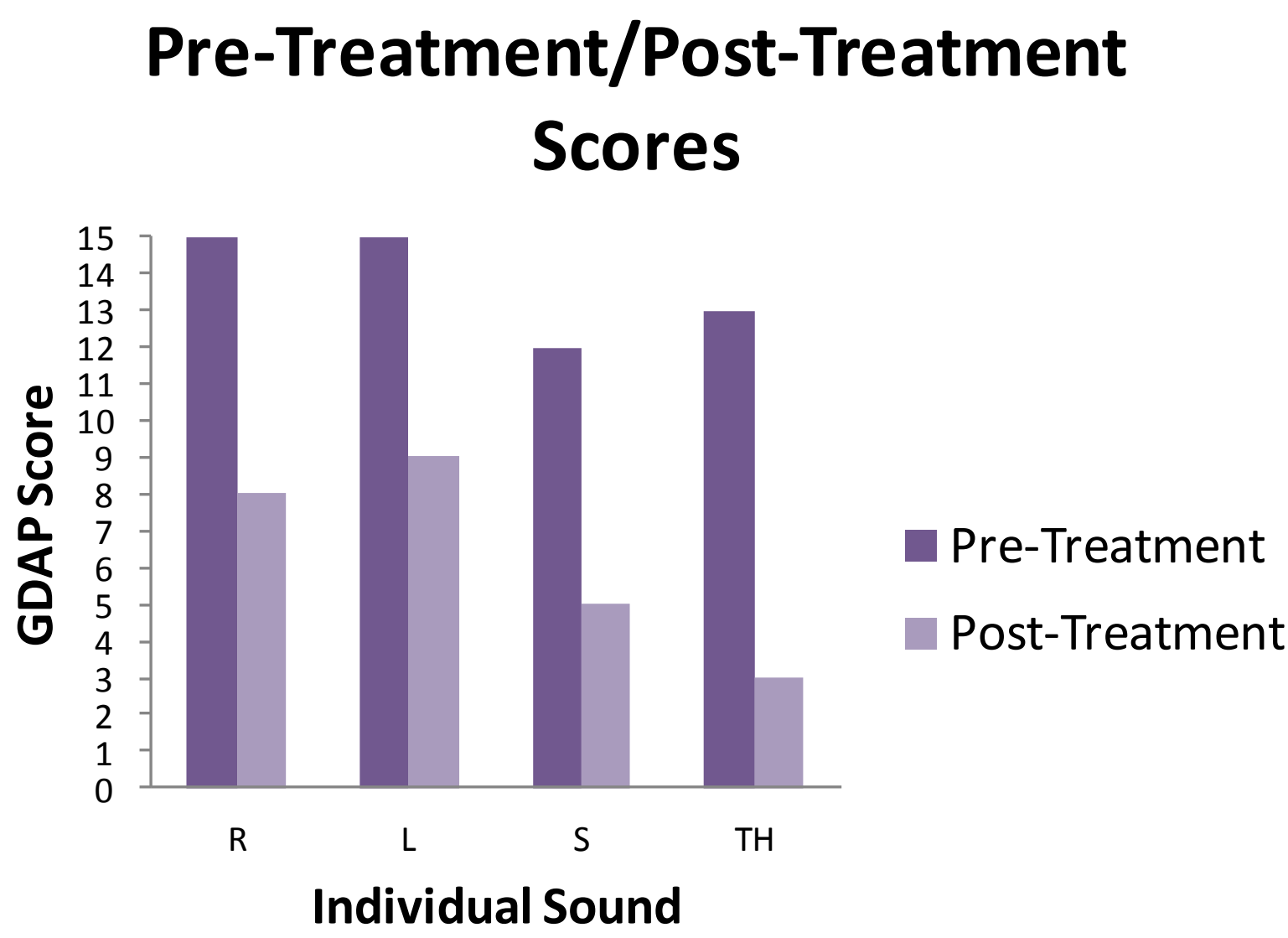
All research completed in collaboration with faculty mentor, Dr. Amy Glaspey CCC-SLP, Department of Communicative Sciences and Disorders.

Materials and Methods

Participant	Measure	Treatment
<ul style="list-style-type: none">• 6: 2 year old male• Hearing screening: normal• HAPP-3 rating: moderate• PLS-4: SS 98, PR 45• PPVT-4: SS 103, PR 58	<ul style="list-style-type: none">• GDAP: a 15-point scale that measures changing speech production when given help.• Administered pre-treatment (0 weeks), mid-treatment (4 weeks).	<ul style="list-style-type: none">• First Phase: First four weeks “hard” sounds, (GDAP Score- 15,14,13,12).• Sessions: 2 times per week over a four-week period, total of 8 sessions.

Glaspey Dynamic Assessment of Phonology Scale

	Level 0- No Cue	Level 1- Instruction and Verbal Model	Level 2- Instruction, Verbal Model, Prolongation, Segmentation	Level 3- Instruction, Verbal Model, Prolongation, Segmentation, Tactile
Connected Speech	1			
2-Target Sentence	5	3		
4-Word Sentence	4	5		
3-Word Sentence	6	7	8	9
Word	10	11	12	13
Isolation				14
Not Stimulable				15



Results

All 4 hard sounds improved over the course of treatment as indicated by decreasing GDAP scores pre and post treatment:

- “r” improved 7 points
- “l clusters” improved 6 points
- “s clusters” improved 7 points
- “th” improved 10 points

Within treatment, 3 hard sounds improved substantially over the course of two treatment sessions:

- “r” sound improved 4 points
- “l clusters” improved 9 points
- “s clusters” improved 4 points

The “th” sound showed improvement during pre and post assessment, yet yielded consistent scores within treatment sessions 1 and 2.

- “th” improved 0 points, remained at a 3

When comparing overall, composite scores for hard and easy sounds, hard sounds made more significant improvements.

- Hard sounds improved an average 8 points
- Easy sounds improved 2 points

Discussion and Conclusions

- Based on our participant’s improved scores for his hard sounds, the GDAP measure is a beneficial method to assessing speech sound improvement during treatment when given help.
- Improved GDAP scores for our participants’ hard sounds suggests that targeting hard sounds in treatment can lead to significant progress in speech sound production.
- As expected, since hard sounds were the only sounds treated in this study, they yielded better scores when compared to scores for easier sounds (untreated) pre- and post- treatment.
- Implications based off this study suggests that hard target sounds will improve with treatment with slight generalization to easier sounds. Future research could expand this topic by using the GDAP as the measurement tool in targeting easier sounds in therapy, first.