

Longitudinal Outcomes of Children who are DHH who Attended an LSL Preschool Program



Kaytlin Cook-Ward, B.S Lauri Nelson, Ph.D.

Introduction

Early intervention and preschool services that promote kindergarten readiness and age-appropriate academic achievement have been the focus of much research and national interest. Children who are deaf or hard of hearing (DHH) are at risk for speech, language, and academic delays compared with their hearing peers; however, early identification and early intervention can promote age-appropriate development. Documentation of longitudinal performance of children who received intensive LSL preschool services can provide valuable insights to educational programming and achievement expectations.

Procedures

The study utilized a repeated measures research design to obtain language, vocabulary, and literacy outcomes data in children who are DHH, and who are currently enrolled in Sound Beginnings or who were previously enrolled in Sound Beginnings and now attend school in the K-12 setting. Both quantitative and qualitative data were obtained.

Inclusion Criteria

- Children who are DHH who use hearing technology to develop listening and spoken language.
- Children who are currently enrolled or who previously attended Sound Beginnings preschool full-day program at least three days per week over a minimum of one academic school-year.



Can children who are DHH achieve and maintain educational performance similar to hearing peers?

Main Findings

Language

Standard scores at preschool baseline compared with current grade performance showed an average increase of 18, with 95% of participants whose standard scores were higher at current grade than preschool baseline; 95% were within one standard deviation of their typically hearing peers in Core Language compared with assessment standardization sample.

Reading Achievement

Individual participant Total Reading standard scores compared with standardization sample showed that 88% were within one standard deviation of their typically hearing peers. Mean performance in Basic Skills, Reading Comprehension, and Total Reading was slightly higher than average performance of standardization sample.

Expressive and Receptive Vocabulary

Standard scores at preschool baseline compared with current grade performance showed an average increase of 12, with 90% of participants whose standard scores were higher at current grade than preschool baseline; 85% were within one standard deviation of their typically hearing peers in expressive and receptive vocabulary compared with assessment standardization sample.

Study Objectives

- Compare standard scores of study participants with standardization sample for each assessment, and
- Compare the within-subjects standard scores over time from preschool to their current grade level for:
 - Language
 - Receptive vocabulary
 - Expressive vocabulary
 - Reading achievement
- Obtain qualitative parent-report data for:
 - Pragmatics skills development
 - Parent experiences and recommendations

Assessments

Standardized assessments:

- Clinical Evaluation of Language Fundamentals (CELF-5)
- Peabody Picture Vocabulary Test (PPVT-4)
- Expressive One-Word Picture Vocabulary Test (EOWPVT-4)
- Woodcock Reading Mastery Test (WRMT-III)



Qualitative Study Survey:

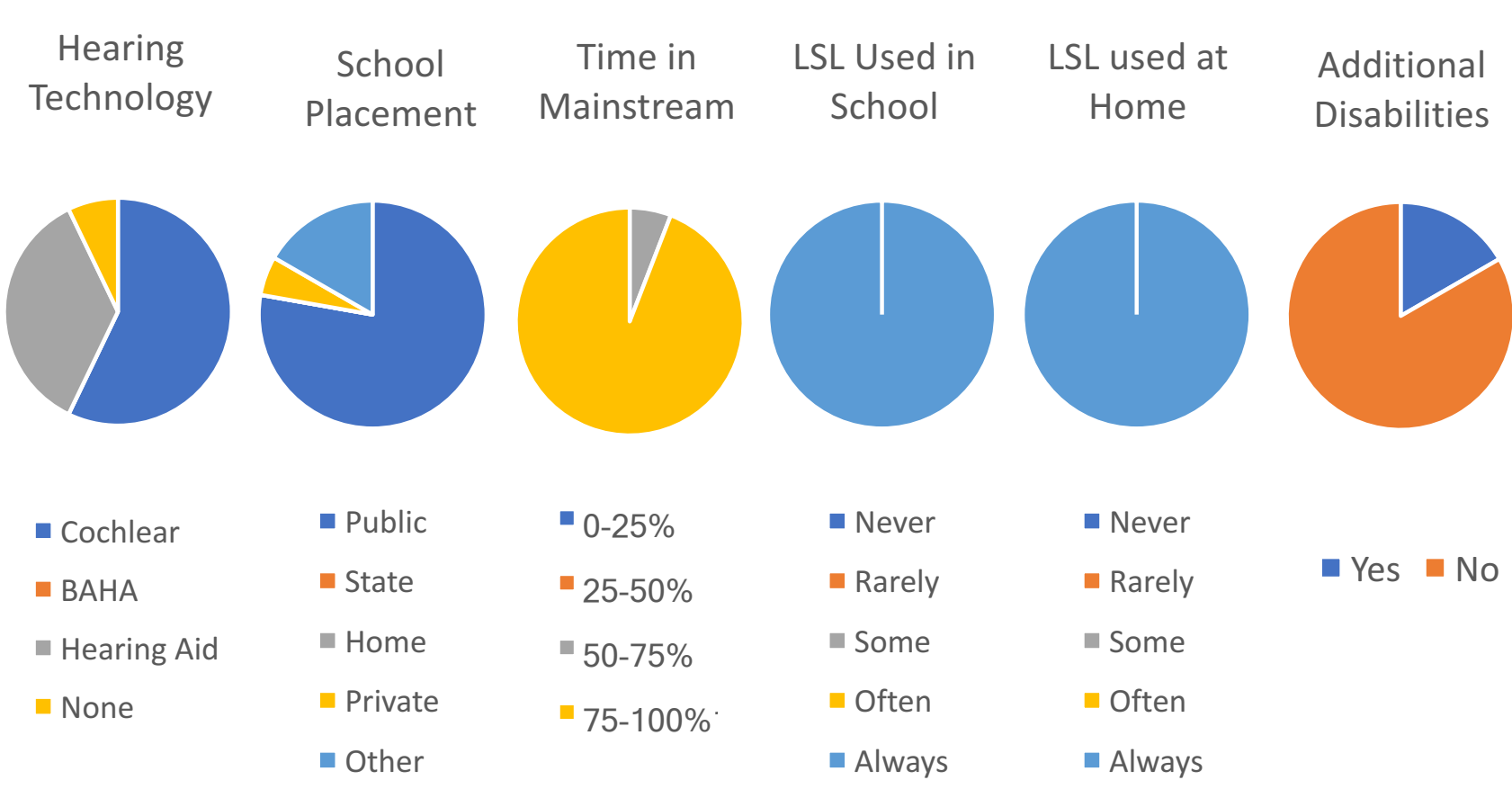
- Pragmatic Profile
- Parent Questionnaire

Results

*Demographics N=21

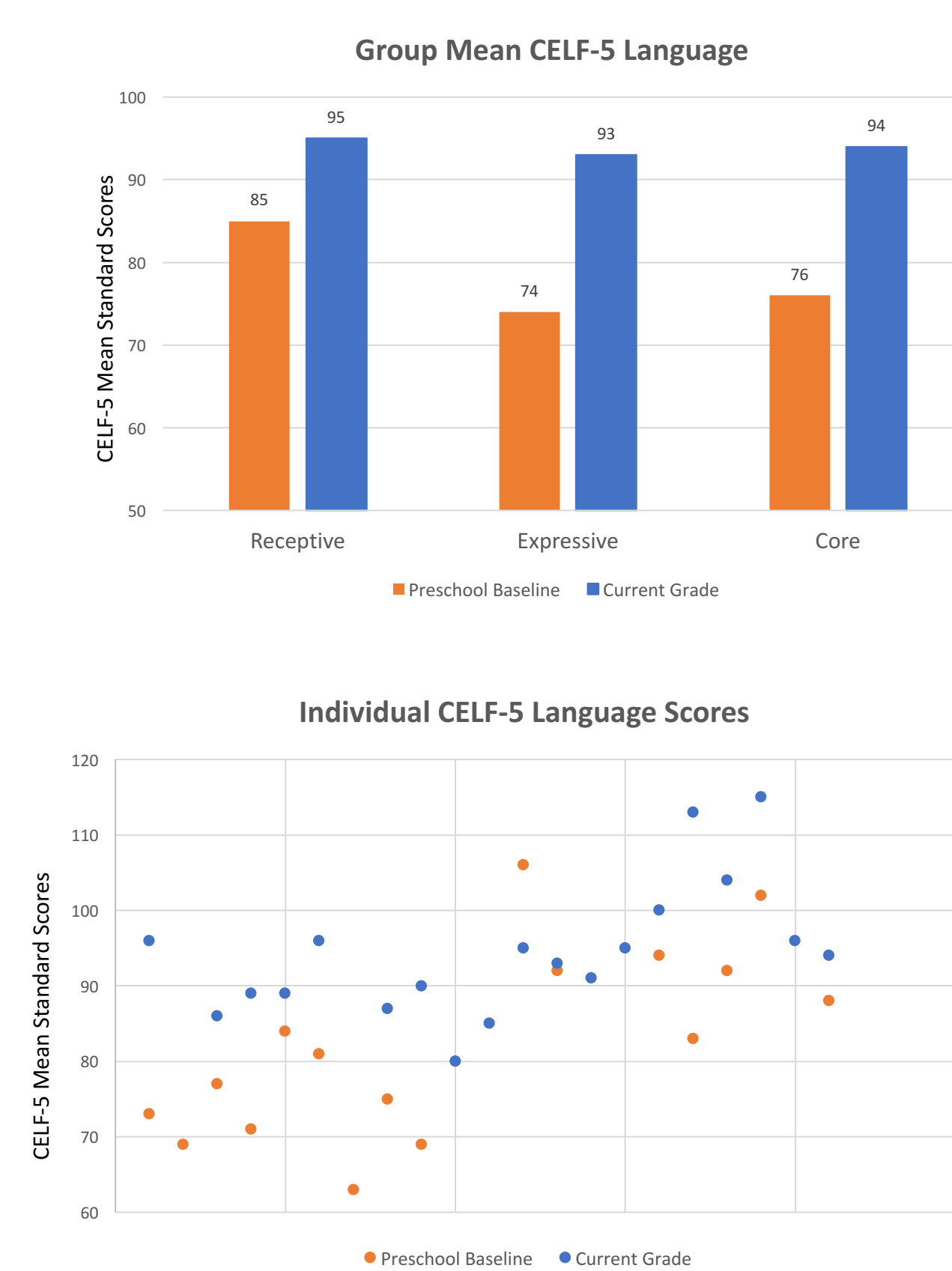


Longitudinal data for participants in the following grades:



*Data collected thus far

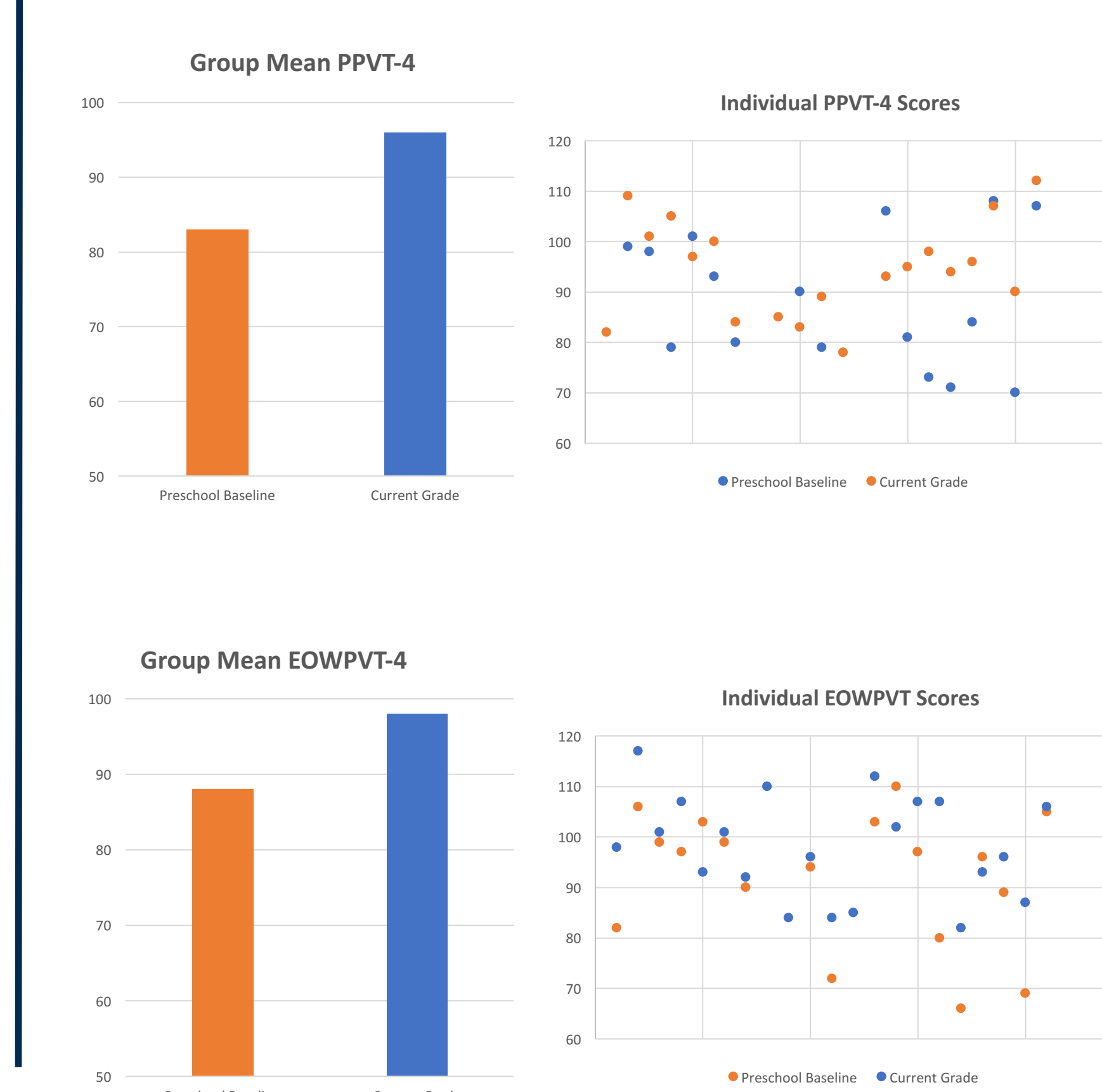
Language



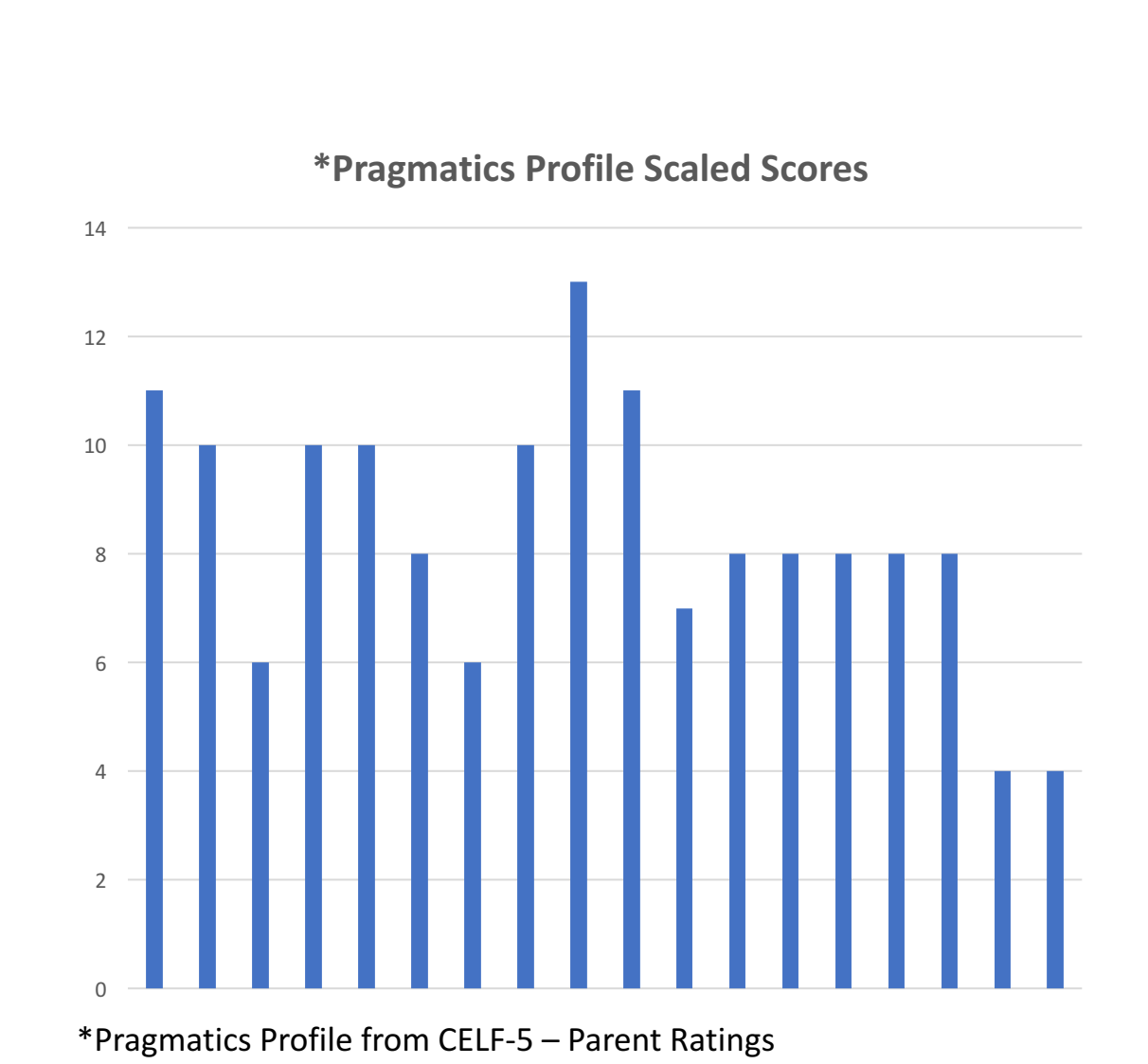
Reading



Vocabulary



Pragmatics



Parent Quotes

What aspects of your child's current education are most positive?

Overall he loves school, cares about his classmates, and loves his teachers. He is passionate about reading, writing, and history. His current school has small class sizes- he loves that!

He is happy at school and with his peers and is always excited about school and what he's going to learn next. He is in a small class of 20 peers and I think that plays a key role in school.

Excellent general education teachers who are responsive to suggestions and communicate well.

What aspects of your child's current education are most concerning?

Taking oral tests and not being able to hear question accurately because of background noise.

Reading has been challenging to learn because it is so connected with spoken language. But between home and extra support at school within the first month back this fall, reading has really clicked for him, now he is taking off.

He doesn't always advocate for himself. He forgets to wear his receiver and if he didn't hear the teacher he doesn't always ask for clarification.

What advice would you give to early intervention and preschool professionals?

Every child learns uniquely, find what makes them excited and mold your therapies to the child. Ask the parents for ideas (especially non-verbal stages). Keep communication open. Always end on a positive note even if there's some hard stuff in the middle.

Listen to the parents concerns. They are very real to them, and sometimes just want to know they are part of their child's education plan.

Empower families with the language (vocabulary) advocacy skills to work for their child. Empowering parents to become advocates will lead to kids becoming self-advocates.

What advice would you give to professionals in the K-12 setting?

To become more familiar with the technology needed by DHH students. Too many times we have had to bring this up when addressing other "problems" which were avoidable had his technology been used properly.

Hold your expectations high for all kids and don't dismiss something because of a disability.

Tests are just tests. (If) The children might not do well, it could just mean they're not great test takers.

Advice you might offer to parents with a child newly diagnosed with hearing loss?

When things calm down (they will), invest time and energy building relationships and social capital with your doctors, professionals, therapists, their future elementary school, etc. It is time well spent to build team of advocates for your child's whole life.

Don't get hung up on how far your child might be behind or that your families journey might be different than imagined. Celebrate the little successes! Have fun with your journey because watching your child learn to be successful is amazing and beautiful! Doesn't matter if it's slower paced than other kids because the scenic route is always worth the longer journey.

Get as much early intervention as you can, find support in other parents with similar situations and it gets easier.