Family Bimodal Bilingual Language Development: Longitudinal Study of Families Learning ASL

Early Hearing Detection & Intervention (EHDI) Conference
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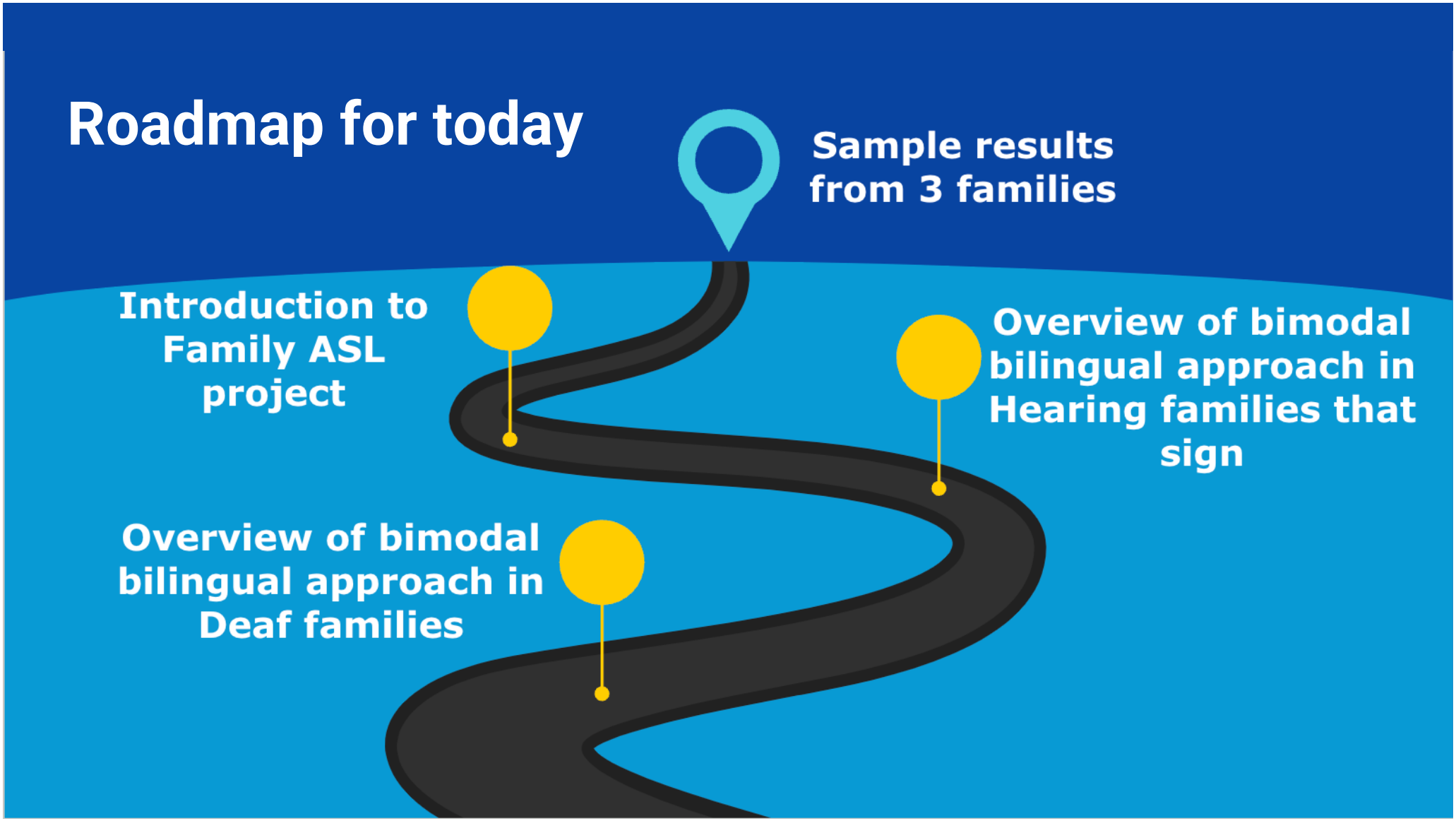
How do families communicate with young deaf and hard-of hearing children?

https://magazine.uconn.edu/2018/02/28/case-bilingual-deaf-children/

- Does sign language obstruct spoken language development?
- Can hearing parents provide adequate sign language input?

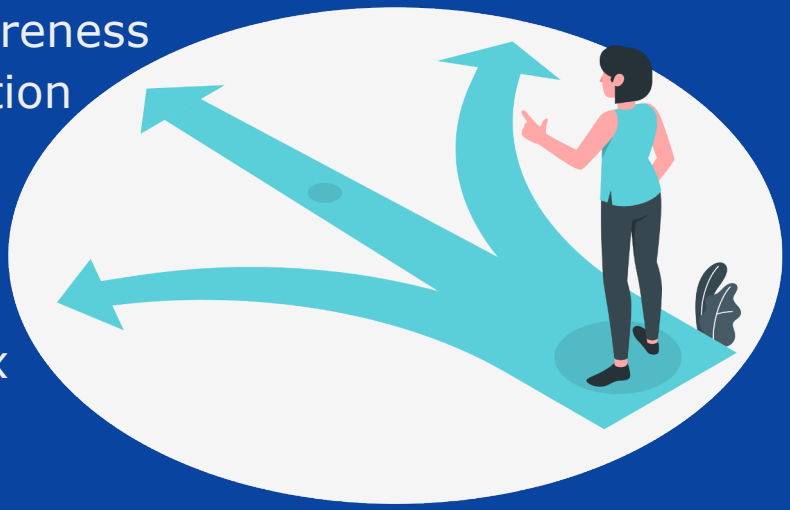

Roadmap for today
Sample results from 3 families
Introduction to Family ASL project
Overview of bimodal bilingual approach in Hearing families that sign
Overview of bimodal bilingual approach in Deaf families

Pursuing a bimodal bilingual approach

General language measures
ASL Receptive Skills Test

Phonological awareness
Phonetic articulation

Expressive
vocabulary
Productive syntax



Deaf children with amplification who use a natural sign language with their Deaf families scored in the normal range for hearing children on standard English tests, outperforming oral-only DHH children.

Davidson, Lillo-Martin & Chen Pichler (2014)

Pursuing a bimodal bilingual approach

Bimodal bilinguals may initially display temporary, normal lags* parallel to those observed for hearing bilinguals (Goodwin & Lillo-Martin 2023; Tang, Qun, Jia & Yiu 2023).

Bimodal bilingualism continues to confer linguistic and academic advantages into adolescence (Tomasuolo, Fellini, Di Renzo & Voterra, 2010; Henner et al. 2016; Hrastinski & Wilbur 2016).

https://www.facebook.com/GBC.ESL/posts/speaking-two-different-languages-makes-you-bilingual-and-knowing-a-spoken-and-a-/3685202911493228/

Deaf children in hearing+signing families: A unique context for language acquisition

Deaf children learning a sign language as an L1 from hearing parents who are learning the sign language as an L2

Hearing+signing parents: Mixed picture with gaps

Previous studies report that Deaf parents' signing displays:

- generally more skilled communicative strategies (e.g. joint attention, attention-getting) but with wide variation (Spencer & Harris 2006);
- richer and more varied signed phonological input than signing from hearing parents (Lu, Jones & Morgan 2016).

Latest studies suggest resilience of deaf infants (0-18 mo.) e.g., ability to develop age-appropriate ASL vocabulary regardless of ASL proficiency of hearing+signing parents (Caselli, Pyers & Lieberman 2021; Berger, Pyers, Lieberman & Caselli 2023).

Family ASL: Bimodal bilingual development by deaf children with hearing parents

What do interactions between dhh children and their hearing+signing parents look like in detail?

- How proficiently do parents learn ASL and how do they use it at home?
- What strategies best support parents' L2 development?
- What is the relationship between parents' and children's language development?

Family ASL Services

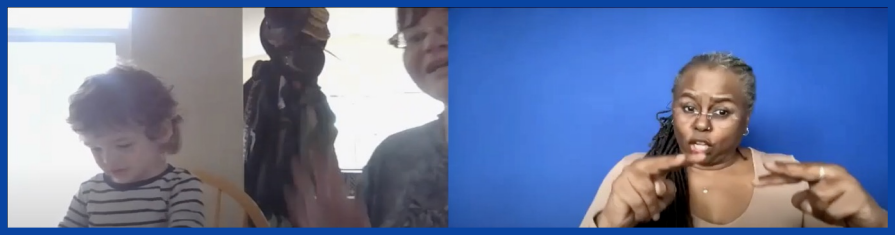
SKI-HI Deaf Mentor Curriculum

ASL @ Home

DLIA
Deaf Leadership International Alliance

12 WAYS DEAF ADULTS VISUALLY INTERACT WITH YOUNG CHILDREN

Family ASL Services



Family ASL Study - Results from 3 Families

Ellie

- Profoundly deaf
- Received cochlear implants at 20 mths
- Age 2;00 at start of project
- Family used ASL and sign-supported English with her before joining
- Within 1 SD on cognitive and social-emotional screener

Nayla

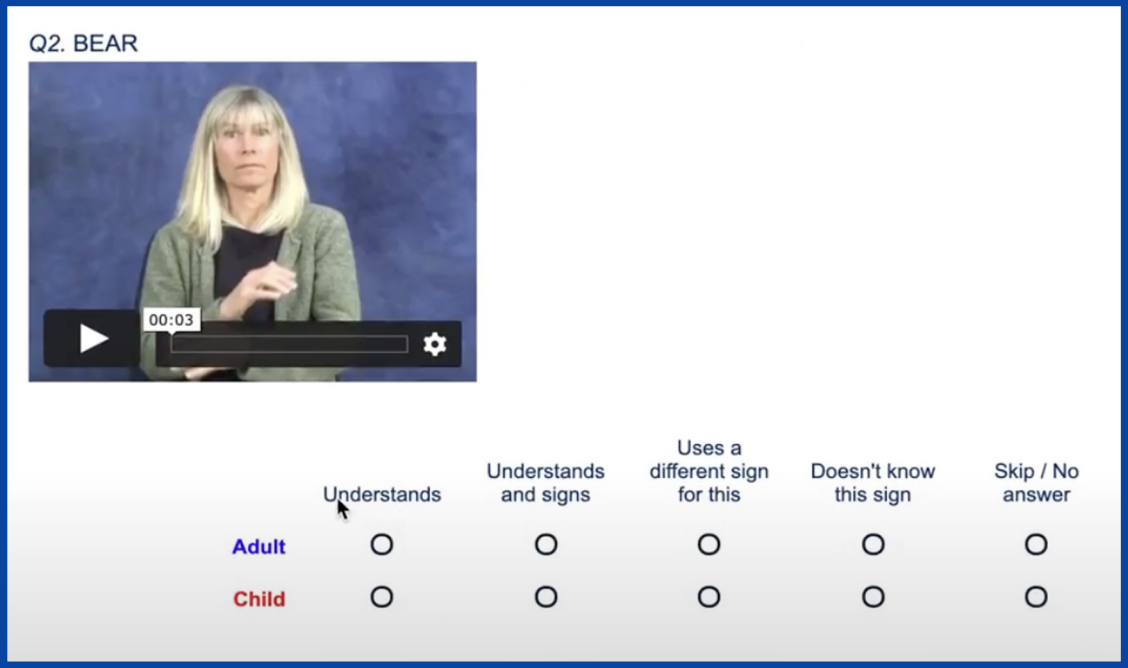
- Profoundly deaf
- Received cochlear implants at 26 mths
- Age 2;05 at start of project
- Family used spoken English, sign-supported English, and ASL with her before joining
- Within 1 SD on cognitive and social-emotional screener

Haven

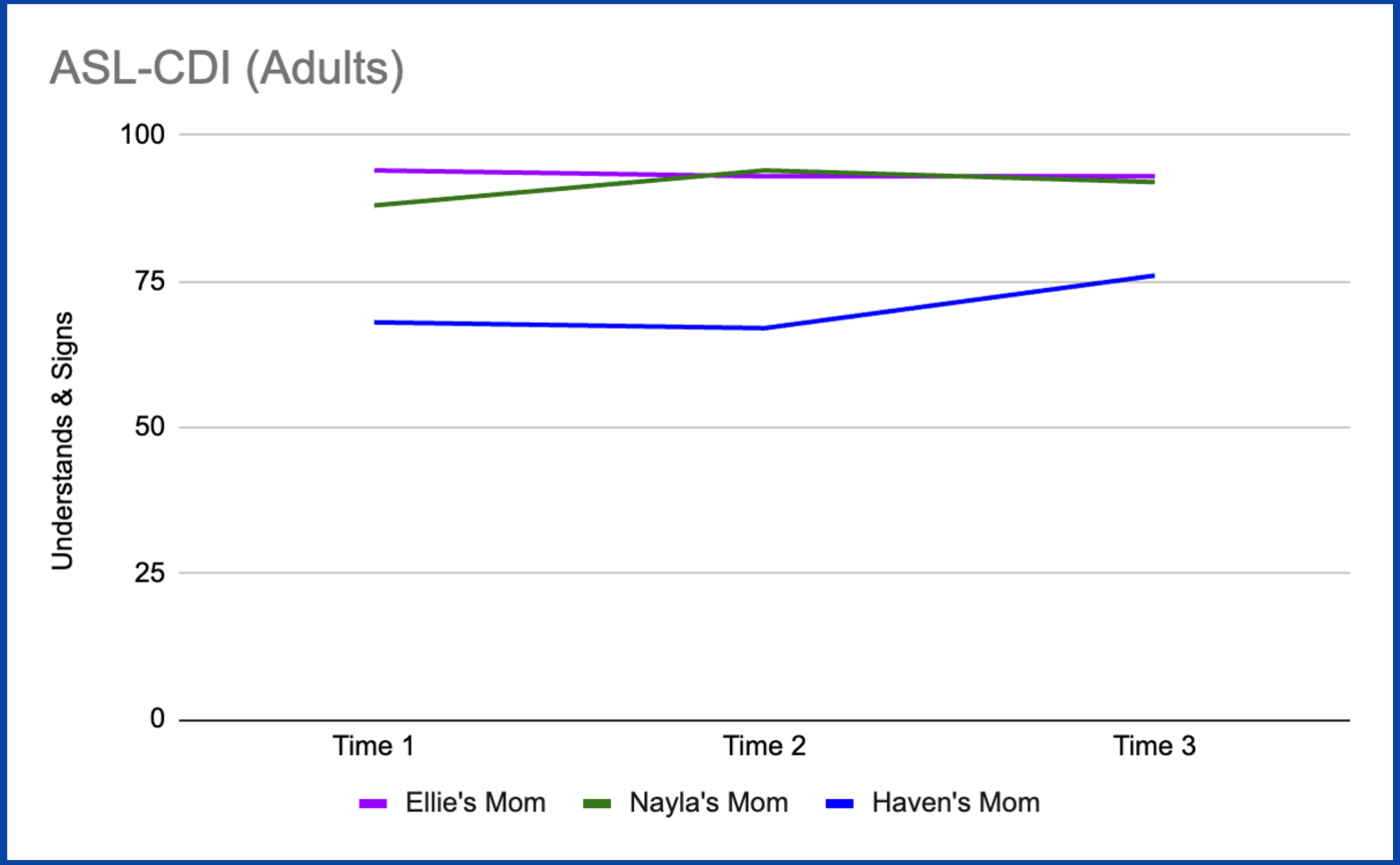
- Profoundly deaf
- Received cochlear implants at 12 mths
- Age 3;02 at start of project
- Family used primarily English with her before joining
- Within 1 SD on cognitive and social-emotional screener

ASL-CDI (Communicative Development Inventory)

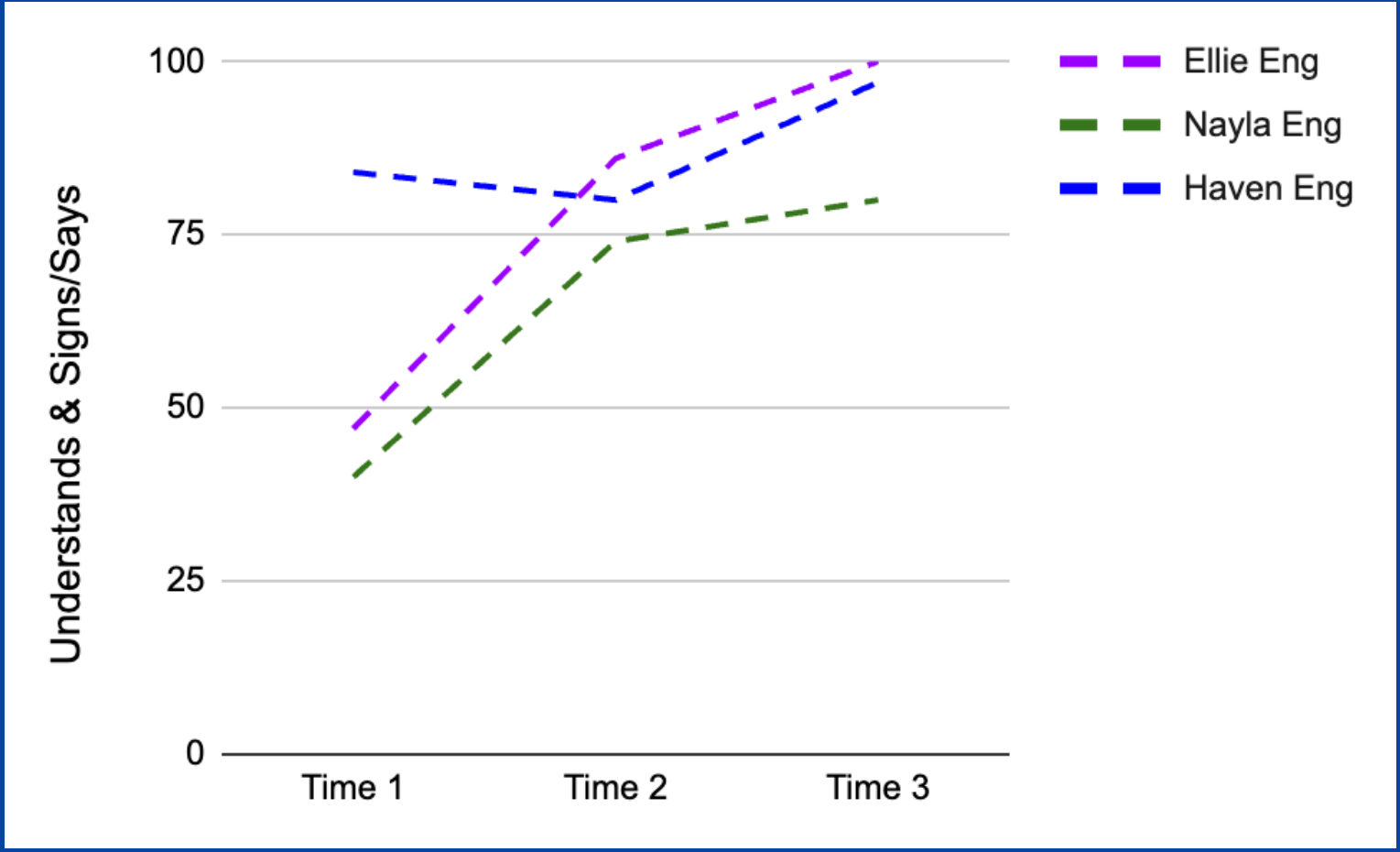
(Caselli et al. 2020)



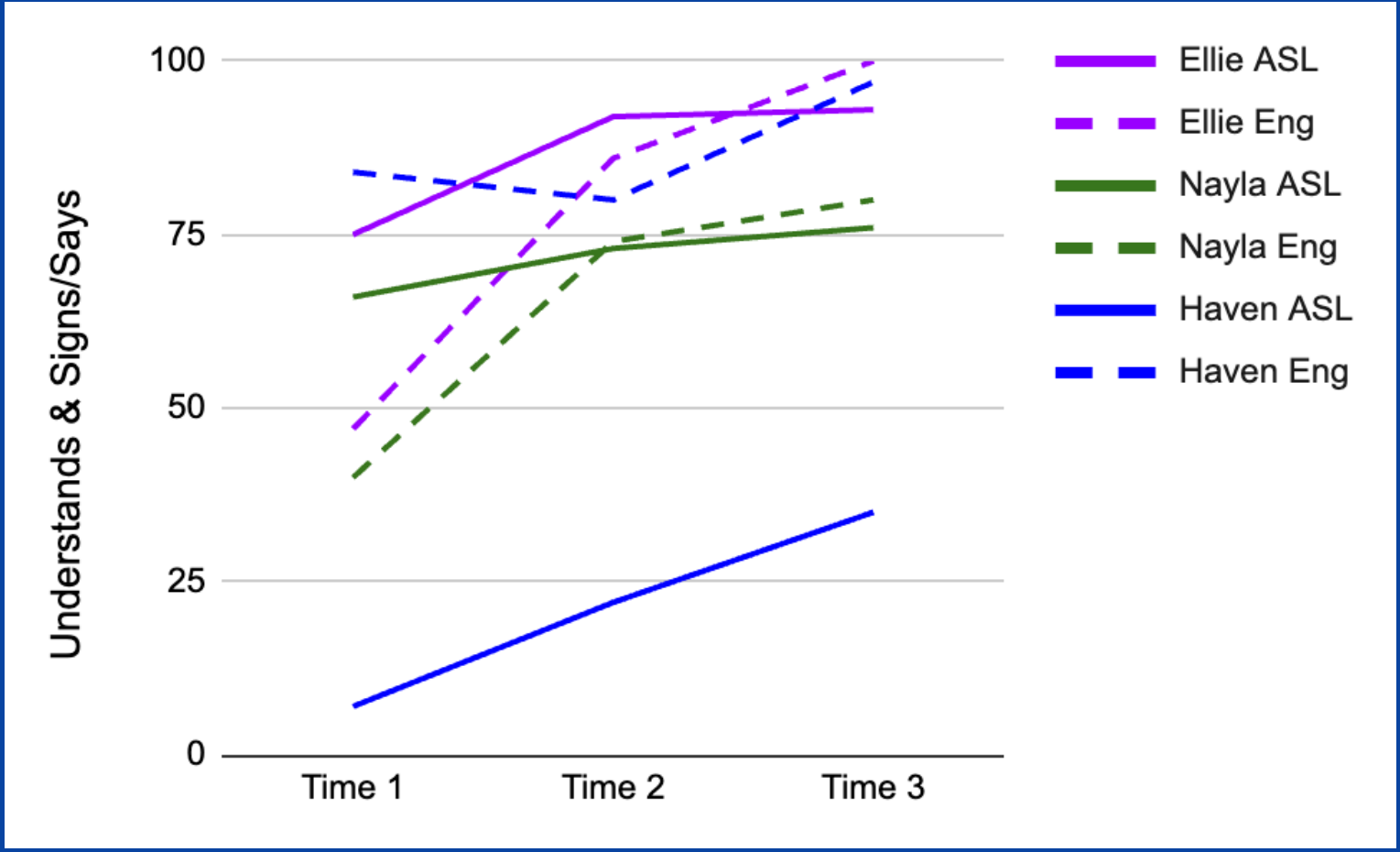
ASL-CDI Results (Adults)



ASL-CDI and Eng-CDI Results (Children)



ASL-CDI and Eng-CDI Results (Children)



ASL-PET (Phonological Elicitation Task)

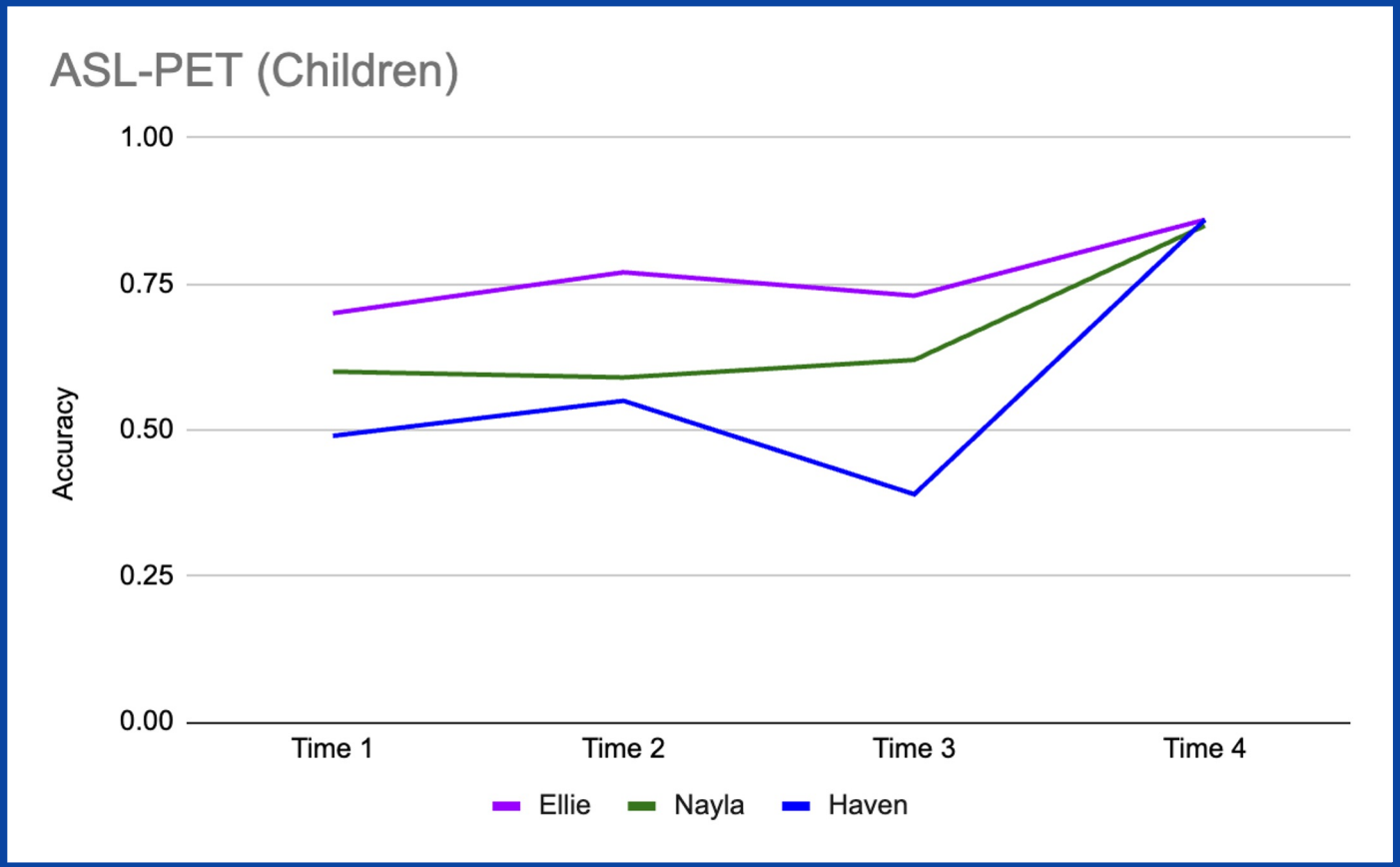
Procedures: Participants watch the model produce each word twice and copy once as similar as possible

Note: For this presentation, we present results and analysis of data from children only

Model:

Participants:

ASL-PET Results



(Gu, Lillo-Martin, Gale & Chen Pichler 2023)

Visual Communication & Sign Language Checklist (VCSL)

(Simms et al. 2013)

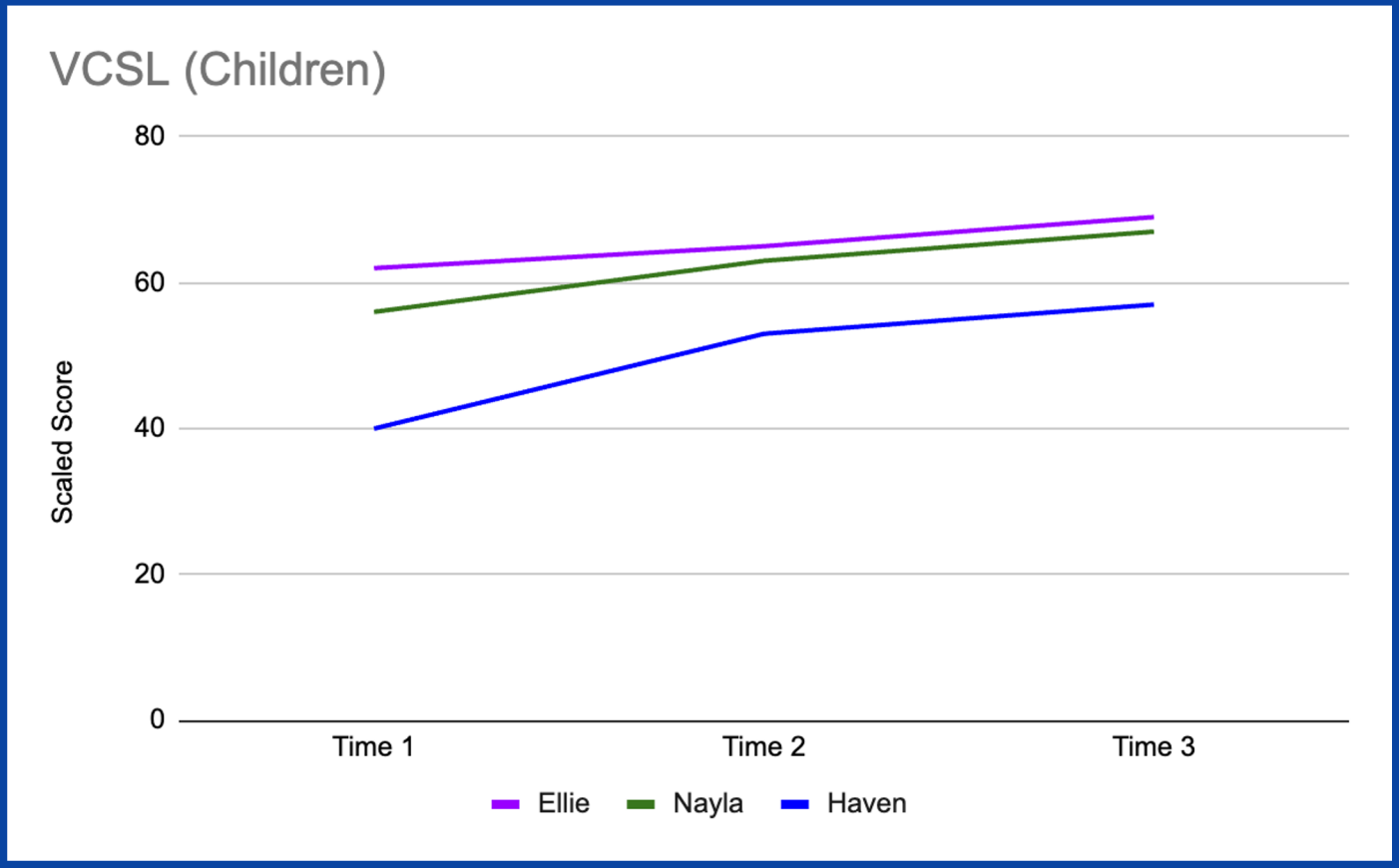
VCSL

Visual Communication and Sign Language Checklist

2 year to 3 years	Not Yet Emerging	Emerging	Inconsistent Use	Mastered
Uses ***descriptive classifier*** (e.g., CL: F spots)				
Begins to use non-manual markers (i.e., facial expressions such as raises/squinted eyebrows)				
Points to common areas in house when asked question (e.g., MOMMY GO?)				
Requests help when needed				
Uses pronouns (e.g., HE, SHE, IT)				
Names objects/animals/people in pictures when asked				

Rasch scoring approach (Allen & Morere 2022)

VCSL Results (Children)



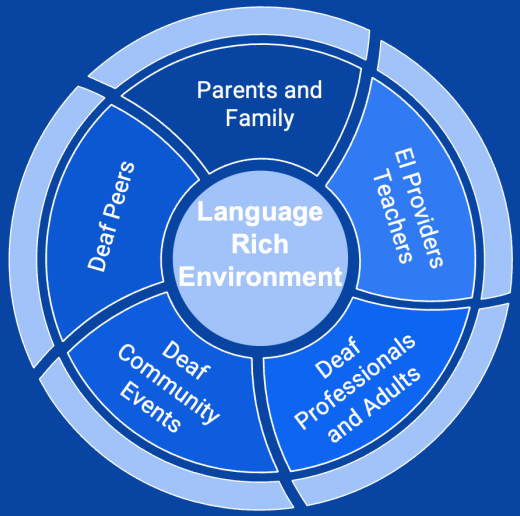
Summary

- Overall, we see positive ASL growth in all three families, despite variations in parents' ASL proficiency.

- Adopting a natural sign language for family use did not interfere with children's English development, whether families showed higher or more moderate levels of ASL proficiency.

Take-away messages from this project

Hearing parents can support L1 sign language developmen



Parents need not be the sole ASL input providers.

Bimodal bilingual approach offers flexibility

- **Each family's acquisition path is unique**
  - ***For families who embrace ASL, bimodal bilingualism is an achievable goal!***

Family ASL Presentations at EHDI

Title	Date	Time	Location
Family Bimodal Bilingual Language Development: Longitudinal Study of Families Learning ASL	Monday March 18, 2024	1:55 PM - 2:20 PM	Granite A-C
Families Learning ASL on Zoom: The Good, The Bad and The Beautiful	Tuesday March 19, 2024	9:40 AM - 10:05 AM	Capitol 3
Family ASL: Mini-Lessons on Visual Communication Strategies	Tuesday March 19, 2024	10:10 AM - 10:35 AM	Capitol 3

Guiding Values for Language Access

Researching Shared Attention Through Deaf Eyes

Diversity, Equity & Inclusion: Deaf Gain in Children's Books

DHH Adult Consumer-to-Family Support Services: Exploring Parent Experiences and Perspectives


Thank
You

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