

Examining a Family-Centered ASL Curriculum: Provider Input & Parent Progress

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Learning Objectives

1. **Describe** the structure of the *ASL at Home* curriculum and how it supports provider service delivery and parents' use of ASL with their children
2. **Discuss** the implications of providers' perceptions of the *ASL at Home* curriculum
3. **Evaluate** the ways that parents' child-directed ASL changed after an 8-week parent-focused ASL class



Today's aim (if you remember nothing else...)

We hope to stoke your enthusiasm for parents' ability to learn and use ASL with their deaf children and to come away with concrete ways to support them!



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Today's talk

- Two research studies on the *ASL at Home* curriculum
 - One qualitative focused on provider *experiences*
 - One quantitative focused on parent *learning outcomes*

Taken together...

- Common claim: "ASL is too hard for parents. They won't be good language models. They'll never be fluent enough."
- These studies refute that...and so much more



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A qualitative research study is one which examines history and people's experiences, while a quantitative study is one which uses numerical data to measure pre-determined values relevant to the investigation.

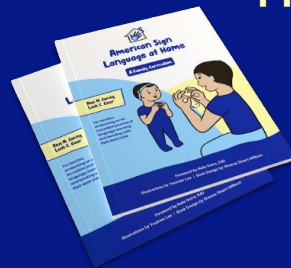
What is



ASL at Home ?



**An innovative,
family-centered
curriculum designed for
families with young deaf
children and the
professionals who support
them.**



First and foremost, ASL at Home is a curriculum book.

A focus on this population

- Families (parents, grandparents, etc.) are not college students
 - Functional language for everyday interactions
 - Avoid overwhelm
 - Practice sentences immediately



A routine-based, family-centered format

- Young children learn best in their natural environment
- Learning in daily routines →
 - Generalize skills to other aspects of life
 - Faster progress
 - Easy to practice multiple times a day, every day



(Hintermair, 2016; McWilliam, 2016; Quiñonez Summer, 2022)



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Children learn best in their natural environment during everyday activities. Children learn during daily routines which helps them to generalize skills to other aspects of their lives and make faster progress. It's also easier to practice multiple times a day, every day, because you're almost always in a "natural environment"

Structure: 3 main sections

1. Language instruction
2. Language enrichment technique
3. Deaf community cultural wealth (DCCW)



Chapter 5: Bedtime

Recap from last time: How did it go?

Instructional materials

Vocabulary

Sentence practice with new vocabulary

Receptive practice

Apply what you've learned: Language enrichment technique

Deaf Community Cultural Wealth



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Efficacy from two angles:

Qualitative (descriptive):

What are providers' *experiences* of using the curriculum?

Quantitative (measuring outcomes):

How well does the curriculum *work* to increase parents' signing with their children?



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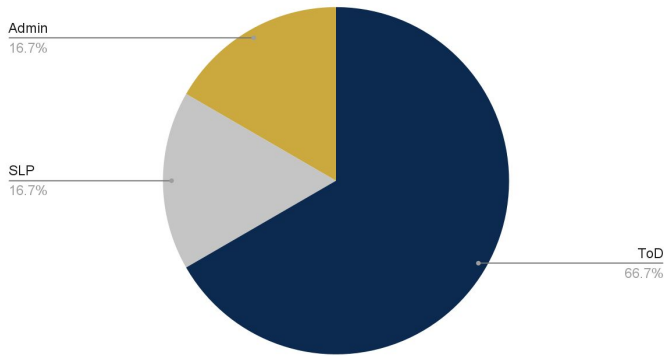
**The qualitative study:
*A family-centered
curriculum: What are
the benefits and what
is still lacking?***



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Participant demographics

Participant's EI roles



Gender	Age	Years of Prax in EI
F (N = 6)	30-39 (n = 5)	<5 years (n = 4)
	50-59 (n = 1)	5-10 years (n = 2)



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I had four teachers of the deaf, one administrator, and one SLP in this study. All identified as female with 5 aged 30-39 and one aged 50-59. Four had less than 5 years experience in EI (though two of them have over 10 years of experience in deaf ed but recently moved to EI) and two 5-10 years of experience. One had over 30 years of experience in special ed in various roles, but moved to EI in the last 10 years. Five participants were from California and one from Nevada.

Results: Thematic analysis – Primary themes

Structure/ framework for teaching ASL

“So when I was given the curriculum and I had training, I felt like this **release of pressure**, like, ‘okay, I have the **tools in my tool belt** to be able to do this.’”

- Ana, EI ToD

Availability in Spanish

“**I don’t know of any other program that supports Spanish-speaking families.**”

-Chava, Itinerant ToD

DCCW

“And then the **cultural wealth** piece is so important, because again it’s broadening their view of what the future for their child will be. And the connection that they can have, right, to the **deaf community** as well as the hearing community.”

-TD, administrator

Qualitative study recap

- Providers felt they **lacked a framework** for teaching ASL prior to using *ASL at Home*
- They appreciated the **availability of the curriculum in Spanish**
- They appreciated the DCCW lessons because, especially as hearing individuals, they wanted families to learn from **authentic deaf experiences**



**The quantitative study:
*Effects of Family-Centered
ASL Instruction on Hearing
Parents' Child-Directed
Signing***



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Research question

- In parents of young deaf children, how effective is a class using the *ASL at Home* curriculum in increasing the **quantity** and **variety** of signs they use with their child during playtime?
- Dependent variables (what I studied to see if they changed):
 - Number of Total Words in ASL: NTW-ASL
 - Number of Different Words in ASL: NTW-ASL




Participants

5 participants (2 will be shared here)


Calling parents of deaf and hard of hearing children!

You're invited to participate in a research study about how parents learn American Sign Language (ASL)



Time commitment/ your role

- Video-record yourself twice a week playing with your child.
- Take an 8-week ASL class for parents on Zoom, 1 hour/week





Participating is voluntary!

Potential benefit: You may learn to communicate better with your child using ASL!

Interested?

Take a brief survey to see if you qualify:
bit.ly/ParentASL
or scan the QR code:




Questions?

Contact Razi Zarchy at razi.zarchy@rm.edu

DEAF & HARD OF HEARING COMMUNITY

Effects of Family-Centered ASL Instruction on Hearing Parents' Child
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- No experience with formal ASL instruction
- Little to no ASL knowledge
- Parents of deaf or hard of hearing children who:
 - Were 6 months to 2 years, 11 months
 - Had a hearing level of at least moderate (≥ 40 dB minimum) in the ear with more hearing
 - May use any (or no) listening technology



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Design

- Single-case (single-subject) design: Each participant measured over time, compared only to themselves
- Timeline:
 - Baseline period: 2 weeks no class
 - Intervention period: 8-week *ASL at Home* class
 - Follow-up period: 2 weeks no class



Results:

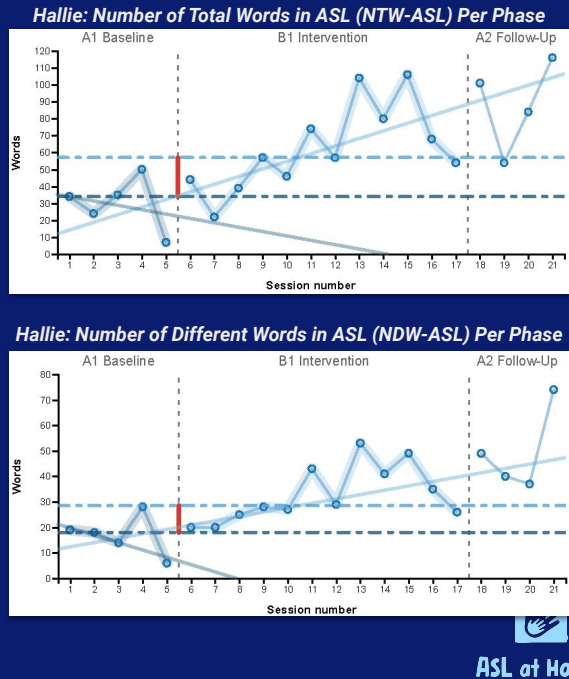
- Percent non-overlapping data (PND)
 - The higher the PND between the baseline and intervention conditions, the greater the chance that the intervention was the reason for the change
- <50%: ineffective intervention
- 50 - 70%: questionably effective intervention
- >70%: effective intervention



Results “Hallie”

Percentage non-overlapping data between baseline and intervention:

- NTW-ASL: 67%
- NDW-ASL: 50%
 - Outliers: 4th & 5th data points
 - Without the outliers, PND: 100%



Here is participant 2, or “Hallie.” Hallie started the study with more ASL skills than some of the others. The top figure shows her NTW and the bottom figure shows her NDW. Hallie’s numbers for both variables were actually decelerating during the baseline phase, which you can see by looking at the gray baseline trend line. When the class started, her signing started accelerating steadily.

The median change between the baseline and intervention, that’s the vertical red line, shows that her numbers were overall higher during the intervention phase.

Hallie’s PND between the baseline and intervention, for NTW, was 67%, so the intervention was questionably effective. For NDW, it was 50%, so the intervention was questionably effective according to this measurement. However, her 4th data point, that’s the high one, second to last in the baseline, was statistically an outlier according to Therapy Science, the tool I used for these calculations, which means it didn’t follow her overall patterns. The 5th data point was, too, but that’s not as relevant to this discussion. If we didn’t count that 4th data point, her PND would be 100%, so that one irregular data point may be masking the actual effectiveness of the intervention when we rely only on PND. That’s why I also wanted to bring your attention to the positive change in trends and the increase in median level between the phases, as well.

During the follow-up phase, Hallie maintained and continued to improve both her quantity and variety of signing.

Key highlights from baseline to intervention conditions:

- NTW-ASL:
 - Median level change: +34
 - RLOC: +16.5

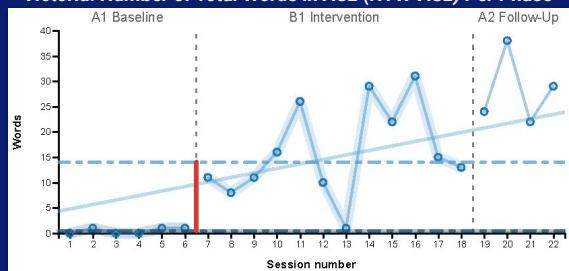
- PND: 67%
 - Follow-up: maintained & continued to improve
- NDW-ASL:
 - Median level change: +10.5
 - RLOC: +13.5
 - PND: 50%
 - Follow-up: maintained & continued to improve

Results “Victoria”

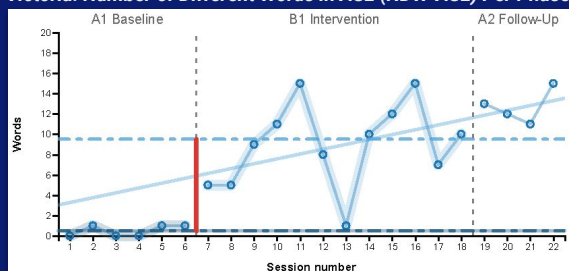
Percentage non-overlapping data between baseline and intervention:

- NTW-ASL: 92%
- NDW-ASL: 92%

Victoria: Number of Total Words in ASL (NTW-ASL) Per Phase



Victoria: Number of Different Words in ASL (NDW-ASL) Per Phase



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Here is participant 4, or “Victoria.” Victoria started as very much a beginner in learning ASL. During the baseline phase, she used either zero signs or one sign with her child in each video, and the trend was flat. Upon introducing the class, her numbers immediately shot up for both variables and continued to accelerate throughout the intervention. You can see that increase in the large median change, the red line, as well, between the baseline and the intervention.

Victoria’s PND between the baseline and intervention was 92% for both variables, so the intervention was very effective. During follow-up, she continued to improve on both variables.

Key highlights from baseline to intervention conditions:

- NTW-ASL:
 - Median level change: +14
 - RLOC: +10
 - PND: 92%
 - Follow-up: maintained & continued to improve
- NDW-ASL:
 - Median level change: +10
 - RLOC: +7.5
 - PND: 92%
 - Follow-up: maintained & continued to improve

Quantitative study recap



- All participants increased their quantity (NTW-ASL) and variety (NDW-ASL) of signing during the intervention phase compared to the baseline phase
- Starting the class may have **raised the participants' awareness** of how much they signed and motivated them to sign more



Taken together...



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Taken together...

- With the family-centered *ASL at Home* curriculum, providers have a **strong framework** through which to teach ASL
- The Deaf Community Cultural Wealth lessons provide **authentic, useful guidance** on raising a deaf child in a hearing world
- Providers can use the curriculum to **serve both English- and Spanish-speaking families**
- These studies show that **ASL is not “too hard” for parents!**
 - Both the quantity and variety of ASL increased when the intervention started and remained consistent or increased over time
- **A family-centered approach guides providers to support families as they learn to embrace their child’s unique identity and communication needs**



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Acknowledgements: THANK YOU!

Qualitative study



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Quantitative study



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**Thank you so
much!**



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