

Optimising early language access: Advancements in bilingual-bicultural early intervention through service enhancement

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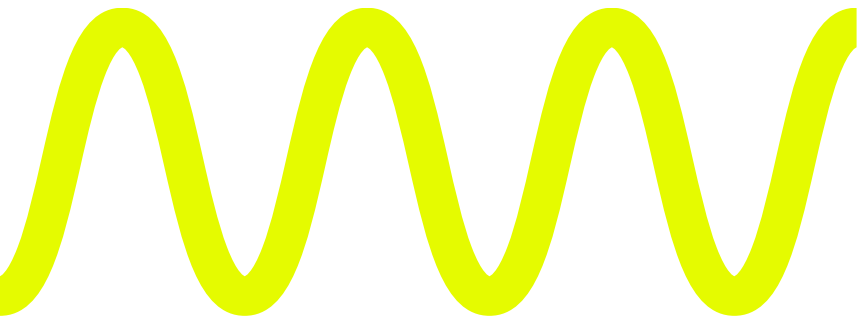
Deaf acknowledgement

We acknowledge and respect the members of the Deaf community in Australia, who preserve their rich heritage, culture and our language: Auslan (Australian Sign Language).

We also acknowledge our custodians of Auslan, promoting awareness, equality and access through our sign language. Through Auslan, we inspire future leaders in our Deaf community to continue our legacy and heritage.



From UNHS to early intervention



An opportunity for early language access

- The latest Family Centred Early Intervention (FCEI) Deaf/Hard of Hearing (DHH) Principles state that early access to language is imperative, whether the language is signed or spoken (Szarkowski et al., 2024).
- Early and consistent exposure to language that is accessible to children who are DHH supports their learning, cognitive, and socio-emotional development, self-advocacy, sense of identity and empowerment (Szarkowski et al., 2024).
- In Australia, universal newborn hearing screening (UNHS) provides the opportunity for very early access to linguistic input through early intervention.

Early linguistic access



- The critical period for language acquisition is the same for both modalities of communication – signed and spoken (Martin & Henner, 2021).
- Due to neuroplasticity underlying language processing, introducing Auslan early before five years of age is critical for establishing robust neural pathways in the language regions of the brain which are essential for developing language fluency and efficient language processing (Mayberry et al., 2011 as cited in D’Rosario, M., & Dawson, E. (2022)).
- Cognitive neuroscience and hearing science suggest a significant benefit to engaging multiple modalities for communication and increasing the amount of information that is accessible to infants and young children who are DHH (Gibbons et al., 2019).
- Viewpoint: “Evidence is provided that a bilingual approach to language for deaf children is not contraindicated and that deaf children can learn both spoken and signed language given an adequate amount of exposure to each language” (Secora & Smith, 2021).

What is a bilingual-bicultural approach?

Bimodal bilingualism refers to a type of bilingualism that employs two different input-output channels, one involving spoken language and the other involving sign language.

—Abutalebi and Clahsen (2016)

Sign bilingualism refers to a type of bilingualism where Auslan is the first language in combination with English for literacy (reading and writing).



In the context of this presentation, this involves developing both Auslan and Spoken English or Auslan only and supporting early literacy in the early intervention period.

Best practice in bilingual-bicultural early intervention

Szarkowski et al. (2024); Moeller et al. (2013); Yoshinaga-Itano (2013)

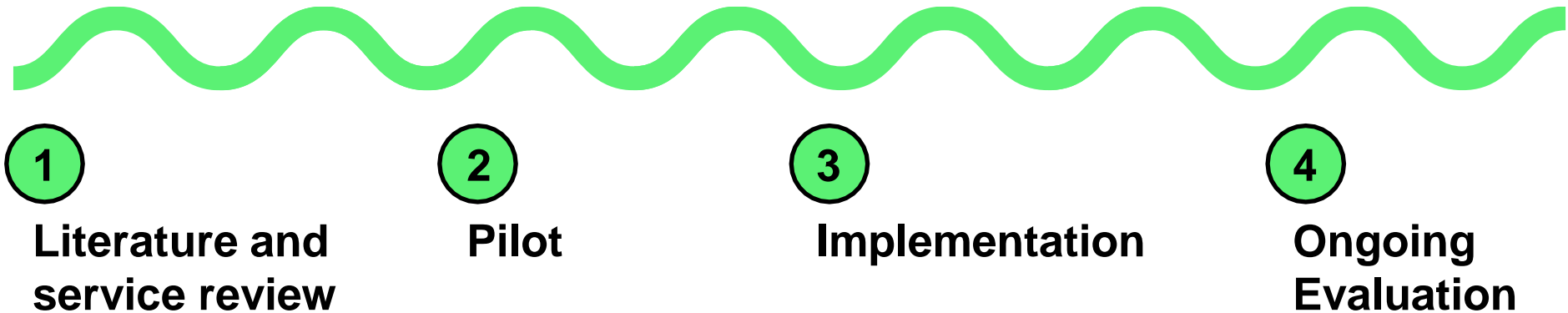
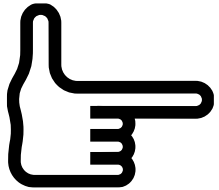
Professionals

- ✓ Native or fluent Auslan skills.
- ✓ Professional qualifications including early childhood, DHH, and discipline specific competencies, with interpersonal attributes to promote the growth and development of the whole child and support families in early intervention.
- ✓ Demonstrated understanding of and respect for Deaf culture and Deaf/Hard of Hearing communities.

Children and families

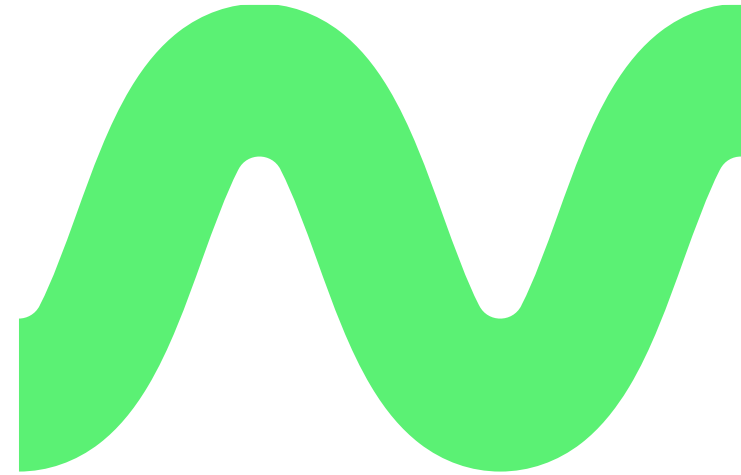
- ✓ Early and consistent access to communication opportunities and language rich environments.
- ✓ Opportunities for social and play interaction with other children, families and DHH adults who use Auslan.
- ✓ Access to support, mentorship and guidance from adults who are Deaf and members of the Deaf community.
- ✓ Families and members of the Deaf community actively participate in the development, implementation, and review of the service.

Pathway to bilingual-bicultural early intervention service enhancement



① Literature and service review

- Established an Early Intervention Auslan Working Group
- Conducted a literature review
- Reviewed the bilingual-bicultural early intervention service
- Identified Key Workers' Auslan qualifications and language proficiency
- Identified number of children and families accessing the service
- Reviewed staffing capacity
- Reviewed Auslan teaching resources and assessment tools
- Determined current practice in Australia.



2 Pilot: Case study

Internal supports

Individual sessions (co-teaching model):

- Teacher of the Deaf with early intervention experience and conversational Auslan
- Deaf Teacher with native Auslan without early intervention experience
- Auslan interpreter

Group program:

- Parent-to-parent support
- Deaf role model

Other:

- Online Beginner Auslan Parent training classes
- Opportunities to meet Deaf adults
- Enrolment in NextSense Sign Bilingual Preschool.

External supports

- Auslan in the home
- Auslan training course for parents
- Auslan support in local childcare
- Department of Education Itinerant Support in childcare.

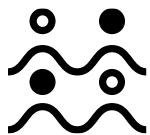
Pilot outcome



Child outcomes

Observed age-appropriate understanding and use of Auslan at 2 years of age.

The service model provided sufficient early language access through high quality Auslan language models, the utilisation of deafness and early childhood knowledge and expertise in early intervention and through opportunities for natural interactions and play with Deaf role models and peers



Family outcomes

Established communication mode between family and child to support social-emotional wellbeing; experienced a sense of community and support within the Deaf community; increased awareness and knowledge of Deaf culture.



Staffing

Co-teaching and mentoring model was feasible and effective for best practice.



Funding

All supports fell within the scope of NDIS.

3 Implementation

- Role creation and recruitment for Sign Bilingual Services Lead
- Roll-out at four sites with national service delivery via telepractice
- Identified Key Workers with required Auslan qualifications and language proficiency (Certificate III in Auslan-minimum requirement) and experience in delivering holistic, family-centred early intervention
- Staff supported to obtain qualifications in Auslan
- Introduced Auslan Language Models (ALM) within an Allied Health Assistant role
- Individual and group sessions are delivered jointly by the Key Worker and ALM
- Families are connected with external services
- Introduced a Bilingual-Bicultural Early Intervention Interest Group for staff professional development and support.

4 Ongoing evaluation

- Impact on child and family outcomes
- Staff skills set and professional development requirements
- Processes and procedures related to assessment and intervention
- Appropriate teaching resources
- Funding sustainability
- Feedback from families and the Deaf community
- Embedding of Deaf leadership
- Research areas.

Example of impact on outcome



Cathy
(11 months)

- Bilateral profound sensorineural hearing loss.
- Early intervention from 1 month of age with immediate ALM support.
- Bilateral cochlear implants at 9 months of age.

Bimodal-bilingual early intervention services

- Weekly 'Incy Wincy Signers' group program
- Weekly CI habilitation sessions with Spoken Language focus.
- Fortnightly ALM access.
- Fortnightly online Beginner Auslan Parent training classes.

Intervention impact

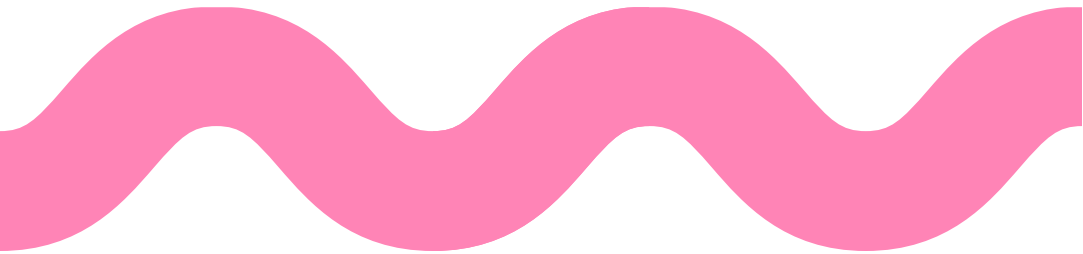
Early stages of early intervention:

- Limited prelinguistic skills for her age; minimal vocalisations and early speech babble.

Progress over 10 months:

- Uses up to five early developing signs with a flat handshape spontaneously.
- Spontaneously imitates modelled routine, single Auslan signs.
- Understands familiar Auslan signs through parent and therapist models.
- Increase in vocalisations and vocal play
- Clear intentional communication
- Increased parent confidence in communicating with their child in their daily environment.

Cathy's early communication in action



Qualitative parent testimonials

|| With every interaction, Ela helps me, my husband, my eldest daughter, and Charlie peel back the layers to **better understand Auslan and the wider Deaf community**. Having a signing speech pathologist to accompany our ALM sessions has been helpful to reassure me that **everything is evidence-based and aligned with her milestones.** ||
— Parent

|| The sessions my son has been participating in at NextSense have been incredibly helpful. I feel well-supported during this **critical early stage** of his intervention. While he hasn't yet developed any spoken words, he is already using several signs to communicate, which is truly amazing. I believe **Auslan is essential for his development** and provides a **meaningful way to connect with the Deaf community.** ||
—Parent

ALM experience

**Service
alignment
with the Deaf
community**

- Deaf gain shifts the negative suggestion of "hearing loss" to emphasize the cognitive, cultural, linguistic, and social contributions of Deaf people in our community.
- Early exposure to Deaf culture fosters a sense of identity and belonging, promoting cultural pride and community bonds.
- Children will thrive and contribute even more to society by sharing their unique perspectives and talents.
- Move toward a more inclusive and diverse world that recognizes and values Deaf contributions.

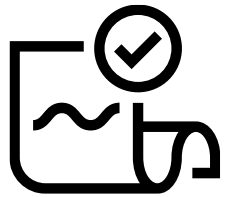
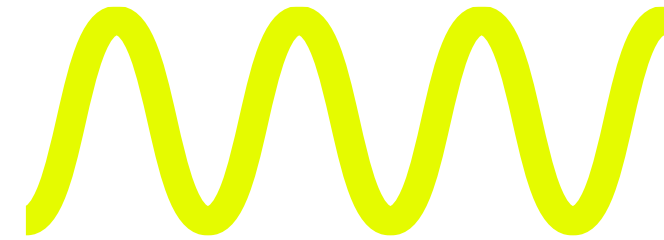
Bauman & Murray (2014)

Conclusions

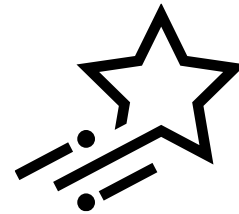
- The introduction of Auslan supported early language and communication development in the young children, evidencing the potential to support cognition and socio-emotional development. Positive parental reports further supported this notion.
- Caregiver-child interactions were enhanced by the introduction of Auslan to support social-emotional wellbeing.
- A bilingual-bicultural early intervention approach may alleviate insufficient early language access and the potential associated impacts on cognition and psychosocial wellbeing.



Recommendations for further research



Identifying language learning and psychosocial development outcomes of children in bilingual-bicultural early intervention programs to inform assessment and intervention practices, tools and protocols.



Identifying professional competencies required to deliver a best practice bilingual-bicultural early intervention service model.

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- Christina Petherick



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Thanks

