Charles Sturt University

SPEECH ASSESSMENT OF CHILDREN'S HOME LANGUAGES (SACHL)

Vietnamese + English

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1. Speech Assessment of Children's Home Languages (SACHL)

Overview

The Speech Assessment of Children's Home Languages (SACHL) is a clinical protocol designed to guide speech pathologists and provide them with the clinical resources to assess children's speech in any language.

The SACHL provides the following resources, clinical forms and a manual to support speech assessment of multilingual children in every language that they speak:

Preparing to assess Vietnamese speech

- Vietnamese phonology
- Vietnamese speech development
- Phonetic transcription of Vietnamese
- Collaborating with families and interpreters

Assessing Vietnamese speech

- Assessment checklist
- Single word scoreform
- Stimulability scoreform
- Family and interpreter handouts

Analysing Vietnamese + English speech

- Analysis form
- Summary and diagnosis form

1. Speech Assessment of Children's Home Languages (SACHL)

Part 1: Multilingual Preparation

Step 1. Consider your own cultural responsivity and linguistic knowledge.

Step 2. Learn about the child's home language(s) and dialect(s) and make a plan for transcription[b].

Step 3. Select a single word speech assessment tool in each language.

Step 4. Collaborate with an assessment partner (e.g., family member, interpreter) who speaks the child's home language who can assist in:

(a) Recording the assessment target words (so the SLP can determine if the child matches the adult target)
(b) Eliciting a single word and connected speech sample in the home language with the child
(c) Identifying which home language sounds and words are difficult for the child to produce
(d) Identifying cross-linguistic transfer during the English speech assessment

Part 2: Multilingual Assessment

Step 5. Conduct case history, language history profiles, language, hearing and oro-motor assessment.

Step 6. Society language (e.g., English) speech assessment: administer the assessment and check whether the child used non-shared consonants from the home language.

Step 7. Home language speech assessment: Ask the assessment partner to administer the child's home language speech assessment and check whether the assessment partner heard any consonant mismatches.

Part 3: Multilingual Analysis

Step 8. Transcribe: Compare the child's productions to the target adult's productions in the home language to help decide if they are correct. Use recordings of the child's and adult's speech to finalise your transcriptions.

Step 9. Analyse the speech samples in each language to form a description of the child's entire phonological repertoire.

(a) Consider reasons for each of the child's mismatches.
(b) Note similarities and differences in the child's productions across languages.
(c) Use a converging evidence approach and criterion-referenced measures across languages for differential diagnosis.

Step 10. Share assessment findings with the family (strengths and concerns) and plan next steps.

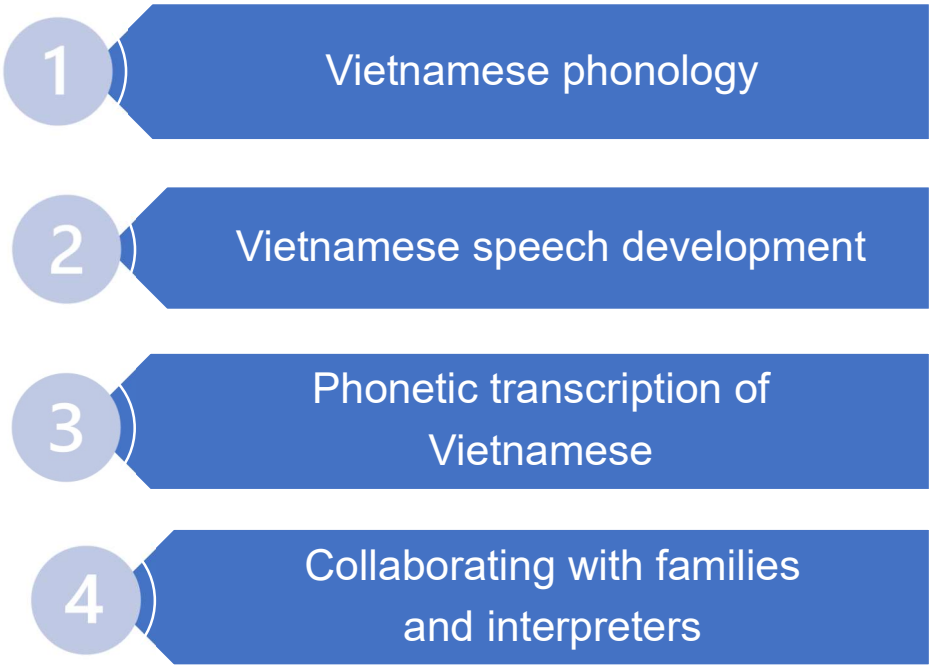
[a] Reprinted with permission from Margetson and McLeod (2026)

[b] Using the Multilingual Transcription Traffic Lights (see SACHL Preparation p.7)

Margetson, K., & McLeod, S. (2026). Speech Assessment of Children's Home Language(s) (SACHL): A clinical protocol. In S. McLeod (Ed.), *The Oxford handbook of speech development in languages of the world*. Oxford University Press.

2. SACHL: Preparing to assess Vietnamese speech

This document is designed for speech pathologists to provide a brief overview of what you need to know before assessing Vietnamese speech, if you do not speak Vietnamese. Four key areas are covered:



Further information will be available in the SACHL manual.

Margetson, K. & McLeod, S. (2026). Speech Assessment of Children's Home Languages (SACHL): Vietnamese and English. Version 1.1 https://www.csu.edu.au/research/multilingual-speech/speech-assessments/SACHL

2. SACHL: Preparing to assess Vietnamese speech

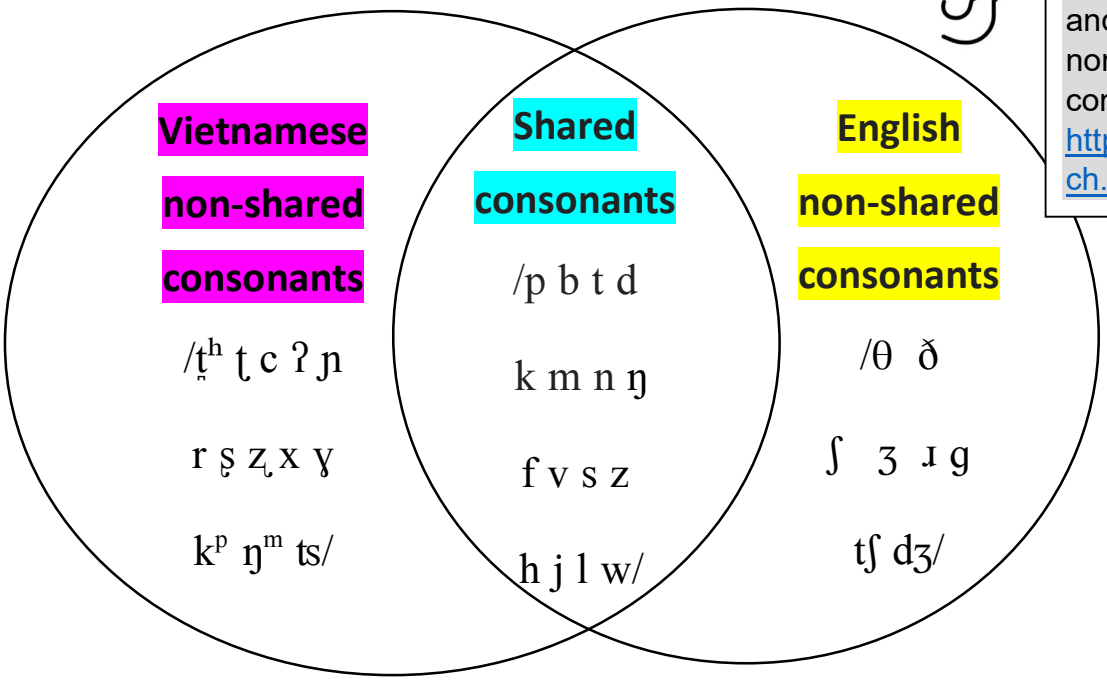
1. Vietnamese Phonology

	Vietnamese phonology	Comparing Vietnamese with English
Consonants	Standard (23) /p, b, t͡ʰ, t, d, ʈ, c, k, ʔ, m, n, ɲ, ŋ, f, v, s, z, ʂ, ʐ, x, ɣ, h, l/ Dialectal variants /k^{p}, ŋ^{m}, r, ʦ/	English has 24 consonants /p, b, t, d, k, g, m, n, ŋ, f, v, θ, ð, s, z, ʃ, ʒ, h, ɹ, j, l, w, ʧ, ʤ/ Vietnamese (VN) and English (ENG) share 16 consonants. Vietnamese has 13 non-shared consonants and English has 8 non-shared consonants (see Venn diagram). Vietnamese speakers typically would not use all non-shared consonants as some are dialectal variants.
Semivowels	/w, j/	/w, j/ are semivowels (not consonants) in Vietnamese
Consonant clusters	None	Consonant clusters only occur in English. Some Vietnamese words start with /kw/. Given that /w/ is a semivowel, /kw/ is not considered a consonant cluster.
Vowels	/i, e, ɛ, ɯ, u, o, ɔ, ɤ, ɑ, ă, ɤ̆, ɛ̆, ɔ̆, ie, uo, ɯɤ/	Vietnamese and English share some vowels. There are many non-shared vowels (see Venn diagram), which differ according to the English dialect.
Tones	(1) level (2) falling (3) creaky (4) dipping-rising (5) rising and (6) constricted	Tones occur in Vietnamese but do not occur in English
Phonotactic restrictions	Syllable shape $C_{(0-1)}w_{(0-1)}VC_{(0-1)}w_{(0-1)}T$ w = semivowel; T = tone	Syllables are written and spoken separately in Vietnamese. English has many polysyllabic words. Vietnamese has a wider range of word initial consonants than word final consonants. English has many within word consonants and a wider range of word final consonants compared to Vietnamese.
Prosody	Syllable-timed	English is stress-timed
Major dialects	Standard, Northern, Central, Southern	There are many English dialects

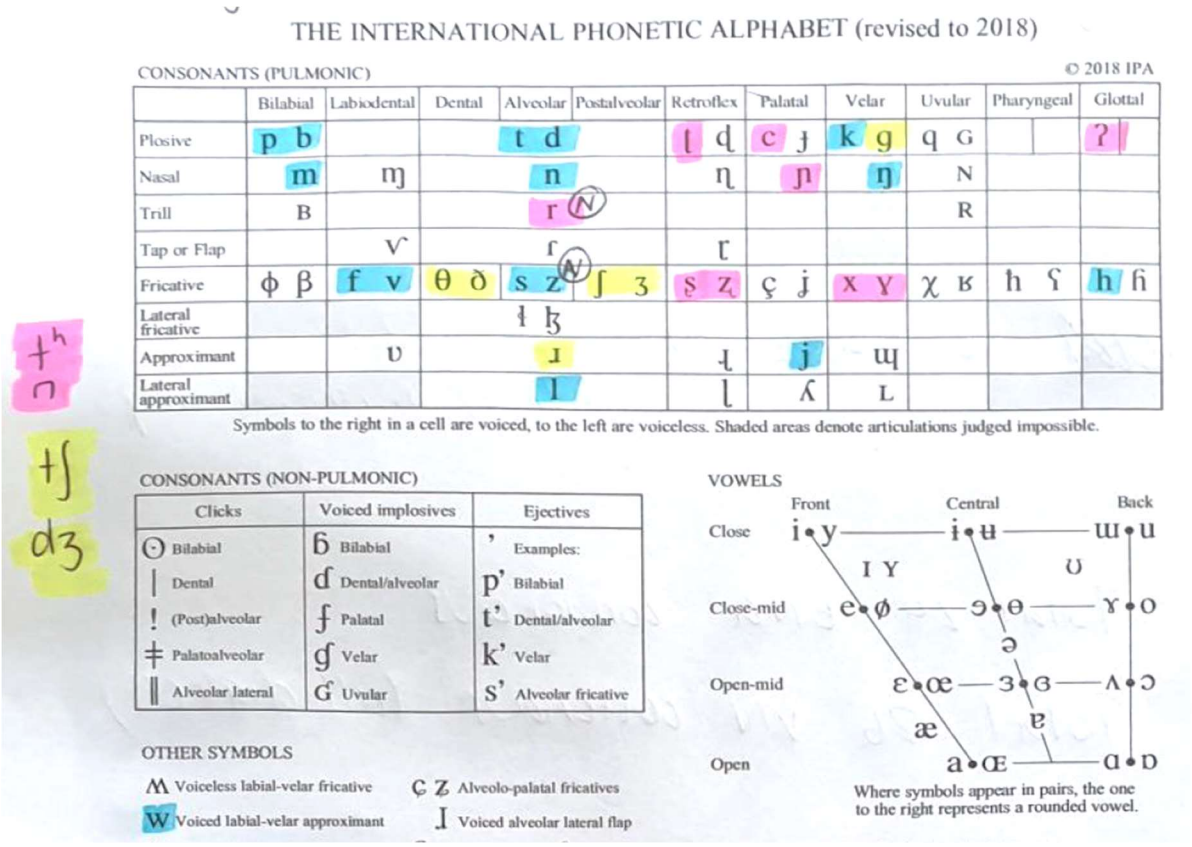
Margetson, K., McLeod, S., Tran, V., Verdon, S., & Phạm, B. (2026). English + Vietnamese speech development. In S. McLeod (Ed.). *The Oxford handbook of speech development in languages of the world*. Oxford University Press.

2. SACHL: Preparing to assess Vietnamese speech

Vietnamese and English Consonants



Listen to consonants and watch videos of non-shared Vietnamese consonants here: https://www.seeingspeech.ac.uk/ipa-charts/

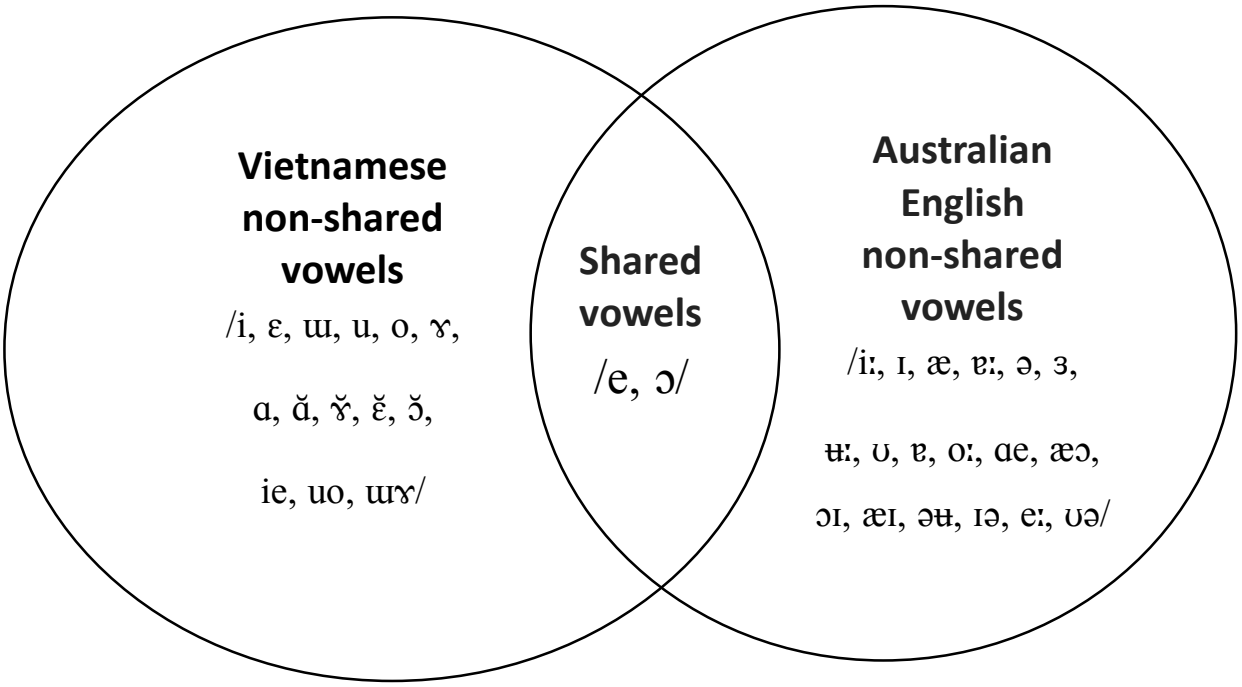


IPA Chart, http://www.internationalphoneticassociation.org/content/ipa-chart, available under a Creative Commons Attribution-Sharealike 3.0 Unported License. Copyright © 2015 International Phonetic Association Shared consonants that occur in English and Vietnamese

Non-shared Vietnamese consonants Non-shared English consonants

2. SACHL: Preparing to assess Vietnamese speech

Vietnamese and English Vowels



Vietnamese dialects

- Major dialects: Northern Vietnamese, Central Vietnamese, and Southern Vietnamese
- Consonants, vowels and tones differ across the Vietnamese dialects, for example the same target word may have a different word initial or word final consonant
- Vietnamese-English-speaking families in countries like Australia and the US may live in communities where more than one dialect is spoken, therefore different dialects may influence their speech productions
- The Vietnamese Speech Assessment (VSA) accounts for the differences in dialect and supports SLPs in assessing Vietnamese-speaking children according to the particular dialect that they speak
- Some of the non-shared Vietnamese consonants are dialectal variants. Vietnamese-speaking adults (and children) would typically only use the consonants in their dialect. This means, it is not expected that Vietnamese speakers would use every Vietnamese consonant in the Venn diagram

2. Vietnamese Speech Development

Typical speech development

1. *Bilingual Vietnamese-English-speaking children*

McLeod et al. (2023) explored Australian bilingual Vietnamese-English-speaking children's Vietnamese and English consonant acquisition. Children were aged between 2 and 8 years old and were grouped according to their proficiency in each language. Consonants were categorised as early developing (correctly produced by 90-100% of children in the sample), middle (correctly produced by 70-89%) and late developing (correctly produced by <70%). Consonants are listed in order of consonant accuracy from highest to lowest.

English consonants

	Early consonants	Middle consonants	Late consonants
High proficiency in both languages	/n, h, m, w, ŋ, k, b, p, f, g, l, ʧ, t, d, j/	/v, ʃ, s, ʤ, ʒ, z, ɹ/	/ð, θ/
Low proficiency in both languages	/h, w, m, f, n/	/b, j, ŋ, k, d, g, ʃ, t, p/	/ʧ, s, v, ʒ, ʤ, l, z, ð, ɹ, θ/
High proficiency in English; low proficiency in Vietnamese	/h, w, f, m, n, d, ŋ, b, t, g, j, k, p, ʃ, ʧ/	/ʤ, v, l, s, ʒ/	/z, ɹ, ð, θ/

Vietnamese consonants

	Early consonants	Middle consonants	Late consonants
High proficiency in both languages	/b, m, f, j, w, d, c, ʈʰ, s, ɲ, l/	/h, n, t, v, p, x/	/ʔ, ɣ, ŋ, k, z, ʂ, ʈ, ʐ/
Low proficiency in both languages	/b, w, j, h, m, f, d/	/s, n, t, p, c, ɲ/	/ʈʰ, l, ʔ, v, ŋ, k, x, z, ʂ, ɣ, ʈ, ʐ/
High proficiency in English; low proficiency in Vietnamese	/d, b, j, f, m, w, h/	/v, c, l, ʈʰ, ɲ, s, n, t, p/	/ʔ, z, ŋ, k, x, ɣ, ʂ, ʈ, ʐ/

McLeod, S., Verdon, S., Margetson, K., Tran, V. H., Wang, C., Phạm, B., To, L., & Huynh, K. (2023). Multilingual speech acquisition by Vietnamese-English–speaking children and adult family members. *Journal of Speech, Language, and Hearing Research, 66*(7), 2184-2229. https://doi.org/10.1044/2023_JSLHR-21-00669

2. SACHL: Preparing to assess Vietnamese speech

2. Vietnamese-speaking children

Phạm et al. (2024) summarised studies of Vietnamese speech acquisition conducted in Vietnam with children who spoke Northern, Central and Southern dialects of Vietnamese. This table details the age at which 90% of children can correctly produce Vietnamese consonants and semivowels across the major dialects.

Age	Word initial consonants	Word final consonants	Semivowels
2;0 - 2;11	/m-, b-, ʔ-/	/-m/	/-w, -j/
3;0 - 3;11	/c-, k-, n-, ɲ-, f-, h-/	/-p, -t, -k, -k^{p}, -n, -ŋ, -ŋ^{m}/	-
4;0 - 4;11	/d-, t-, ŋ-, s-, ɣ-, l-/	-	-
5;0 - 5;11	/x-, t̪^{h}-, v-, ʈ-/	-	-
6;0 - 6;11	/ʂ-, p-, ʐ-, z-/	/-c, -ɲ/	-

Reference: Phạm, B., Phạm, H., Phạm, V., Minh Tran, T. T., Hoang, N., Bui, L., Chung, L. T., Pham, Y. H. T., Dao, T., & Pham, L. T. (2024). Typical consonant acquisition by children across dialects in Vietnam. *Forum for Linguistic Studies, 6*(6), 295–309. https://doi.org/10.30564/fls.v6i6.7796

2. SACHL: Preparing to assess Vietnamese speech

Phonological patterns

Phonological patterns in bilingual Vietnamese-English-speaking children while speaking each language (McLeod et al. 2023)

	English	Vietnamese
Syllable structure patterns	Consonant cluster simplification Consonant cluster reduction Epenthesis Initial consonant deletion Final consonant deletion	Initial consonant deletion Final consonant deletion Semivowel deletion
Substitution patterns	Velar fronting Palatal fronting Stopping of fricatives Stopping of affricates Deaffrication Gliding of liquids Prevocalic voicing Postvocalic devoicing Fricative simplification Liquid simplification Backing Assimilation	Velar fronting Palatal fronting Stopping of fricatives Gliding of fricatives Gliding of nasals Denasalization Nasalization Aspiration Deaspiration Glottal replacement

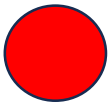
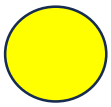
Other common phonological patterns in monolingual children

English (Baker, 2017)	Vietnamese (Phạm & McLeod, 2019)
Syllable structure patterns • Weak syllable deletion • Reduplication **Substitution patterns** • Glottal insertion **Assimilation patterns** • Velar • Labial • Alveolar	**Substitution patterns** • Backing

Note: **Phonological patterns that can be typical in Vietnamese may transfer to English in bilingual children.**

3. Phonetic Transcription of Vietnamese

Multilingual Transcription Traffic Lights

	Category	Consonants	Plan
	**Difficult to transcribe** non-shared home language consonants	/t̪ʰ ʈ c ʔ ɲ r ʂ z̺ x ɣ kᵖ ŋᵐ ʦ/	• Compare to adult production • Ask for help from interpreter/family /multilingual colleague to decide if child is correct
	**Moderately difficult to transcribe** Allophones/shared consonants produced in different ways	/p t k/	• Compare to adult production • Ask for help from interpreter/family /multilingual colleague to decide if child is correct
	**Easier to transcribe** shared consonants produced in the same way	/b d m n ŋ f v s z h j l w/	• Transcribe yourself and seek assistance if needed

Margetson, K., McLeod, S., Verdon, S., & Tran, V. H. (2023). Transcribing multilingual children's and adults' speech. *Clinical Linguistics and Phonetics, 37*(4-6), 415-435. https://doi.org/10.1080/02699206.2022.2051073

Shared, allophonic consonants

Vietnamese consonant	May be perceived by English-speaking SLPs as the following	How to tell the difference
/p/	[b]	In word initial position, /p, t, k/ in Vietnamese are not aspirated. SLPs can try to focus on the voicing of the initial consonant, rather than relying on aspiration or longer voice onset time as a sign that it is a voiceless consonant.
/t/	[d, ʈ]	
/k/	[g, c]	

2. SACHL: Preparing to assess Vietnamese speech

Non-shared Vietnamese consonants

Non-shared Vietnamese consonant	May be perceived by English-speaking SLPs as the following[1]	How to tell the difference
/t̪ʰ/	[t, d, θ, ð]	For /t̪ʰ/, the tip of the tongue approximates the back of the upper teeth (dentalization) and aspiration is present (unlike Vietnamese /t/ which is unaspirated).
/ʈ/	[ʈ, ts, t, c, tʃ]	/ʈ/ is articulated with retroflex placement (try to say /ʈ/ by saying /t/ with the tongue tip flicked back). For English-speakers, it may sound like /tɹ/.
/c/	[tʃ, ʈ, k, ts]	/c/ is a palatal plosive. Placement is further forward than /k/, and it sounds similar to /tʃ/ but without lip rounding.
/ʔ/	[∅, h]	English speakers may not perceive /ʔ/ is present. May only perceive vowel or semivowel /w/ that follows /ʔ/. Vowel or /w/ sounds more forceful following glottal stop due to buildup of pressure.
/ɲ/	[n, ŋ]	For English-speakers, it may sounds like /nj/
/r/	[ɹ]	/r/ is trilled. There is a slight roll/vibration of tongue.
/ʂ/	[s, ʃ]	/ʂ/ is produced further back in the mouth with retroflex placement and without the lip rounding of /ʃ/
/ʐ/	[z, ʒ]	/ʐ/ is produced further back in the mouth with retroflex placement and without the lip rounding of /ʒ/
/x/	[k, ʂ, ɣ]	/x/ has same voicing and placement as /k/, but as a fricative has slightly longer more fricated sound
/ɣ/	[g, ʐ]	/ɣ/ has same voicing and placement as /g/, but as a fricative has slightly longer more fricated sound
/kᵖ/	[p, c, ʔ, ∅]	/kᵖ/ has tongue placement of /k/ but lip placement of /p/. It only occurs in word final position and is not aspirated or released.
/ŋᵐ/	[m, ŋ, ∅]	/ŋᵐ/ has tongue placement of /ŋ/ but lip placement of /m/. It only occurs in word final position.
/ʦ/	-	/ʦ/ is a dialectal variant. /ʦ/ was not tested in the transcription studies.

Masso, S., McLeod, S., Cronin, A., & Phạm, B. (2020). Transcription of Vietnamese adults' and children's consonants by English-speaking speech-language pathologists. *Folia Phoniatrica et Logopaedica, 72*(2), 92–107. https://doi.org/10.1159/000500245

Margetson, K., McLeod, S., Verdon, S., & Tran, V. H. (2023). Transcribing multilingual children's and adults' speech. *Clinical Linguistics and Phonetics, 37*(4-6), 415-435. https://doi.org/10.1080/02699206.2022.2051073

4. Collaborating with families and interpreters

Speech pathologists, families and interpreters all have knowledge and skills that can be used to facilitate a multilingual speech assessment, including when the speech pathologist does not speak the home language.

Speech pathologists	Families	Interpreters
• Lead the assessment in a collaborative way • Conduct English speech assessment • Assess Vietnamese speech with support from family/interpreter • Phonetically transcribe and analyse speech in Vietnamese and English • Make diagnostic decisions	• Know their child, their speech skills and development • Communicate in home language with the child to help obtain speech samples • Indicate if there are concerns with Vietnamese speech production	• Know about the home language and culture • Communicate in home language with the child and family to help obtain speech samples • Indicate if there are concerns with Vietnamese speech production

Culturally responsive communication practices when working with Vietnamese-speaking families

- Recognise indirect communication styles: families may avoid saying something now or expressing disagreement openly to maintain harmony. Be attentive to subtle cues, hesitation, softened responses rather than expecting direct answers.
- Attend to non-verbal communication: facial expressions, tone of voice, pauses, body language can carry important meaning. Silence is not always equal to understanding, it could be uncertainty or careful consideration.
- Understand the importance of social hierarchy and relationships: Parents may rely on/agree with professionals totally, just because they respect them, even when they have questions. Invite them to express their opinions.
- Use and respect kinship terms: Kinship terms (e.g., sister, aunty) are used as pronouns when speaking to people, even when they are not family members, for example, chị, cô for older sister or aunty. You can ask how they would like to be addressed.
- Prioritise relationship building before getting down to work: take time for greetings and small talk.
- Frame questions carefully: use open-ended questions such as ‘How do you feel about …?’ rather than ‘Do you agree?’
- Consider using interpreter where appropriate: even when parents seem to be able to communicate, they may prefer Vietnamese to discuss complex topics. Offer an interpret if possible for clarity and comfort.

3. SACHL Assessment Checklist

This checklist is designed for speech pathologists to ensure that all important aspects of a multilingual speech assessment are completed. It includes links to relevant SACHL forms.

☐ **Select assessment tools**	Single word tests https://www.csu.edu.au/research/multilingual-speech/speech-assessments/speech-assessment-tools Intelligibility in Context Scale (ICS) Vietnamese and English versions https://cdn.csu.edu.au/__data/assets/pdf_file/0004/2175988/ICS-Vietnamese-English-Final-Nov-2015.pdf Speech Participation and Activity Assessment of Children (SPAA-C) Vietnamese and English versions https://cdn.csu.edu.au/__data/assets/pdf_file/0011/2755406/SPAA-C-Child-Vietnamese-English.pdf Use the **SACHL Single Word Scoreform** to write and colour code target words according to Multilingual Transcription Traffic Lights; and collect data from child and parent
☐ **Discuss assessment plan and roles**	☐ Share **SACHL Handouts for Families** and **Interpreters** ☐ Explain purpose of speech assessment and importance of assessing speech in each language ☐ Explain the different parts of the speech assessment and what you would like the family/interpreter to do ☐ Gain consent for audio/video recording the child and their parent/carer saying Vietnamese (and English) words ☐ Show them which sounds/words you need their help deciding if the child is correct
☐ **Start assessment**	☐ Case history including language profile/history (confirm dialect) ☐ Hearing ☐ Oro-motor assessment
☐ **English speech assessment**	☐ Ask family/interpreter/multilingual colleague to ☐ Watch how you cue child ☐ Listen for any home language sounds during English assessment ☐ Audio/video record (optional) ☐ Single word test ☐ Connected speech sample ☐ Intelligibility rating (e.g., Intelligibility in Context Scale – ICS) ☐ Check with family/interpreter whether child used any home language sounds during English assessment

3. SACHL Assessment Checklist

☐ **Home language speech assessment**	☐ Discuss with the family/interpreter ☐ How they can cue the child to say words through the following cues. Note in Vietnamese, they need to encourage the child not to say the classifier: Cue 1: Spontaneous "Đây là con...? [What's this]?" Cue 2: Imitation e.g., "Voi. Con nhắc lại được không? [Elephant. Can you repeat that?]" ☐ The assessment focusses on how children say individual sounds and words (speech), rather than whether children know the word (vocabulary) ☐ Audio/video record (with consent from family) ☐ Single word test ☐ Connected speech sample: ☐ Ask family/interpreter to listen for any sounds that are not produced correctly and to let you know ☐ Intelligibility rating (e.g., Intelligibility in Context Scale) ☐ Note throughout whether you hear the child use English non-shared sounds or English words ☐ Identify any mismatches together ☐ Discuss with family/interpreter: How much do mismatches impact their speech function? Is their pronunciation still acceptable or intelligible even with these mismatches?
☐ **Adult family member speech sample**	☐ Ask adult family members to read aloud the words from the single word tests, and record them ☐ Home language (necessary as a reference for you - to help determine if the child is correct) ☐ Society language (e.g., English) (optional- it is helpful to explore ambient phonology)
☐ **Conduct further assessments**	☐ Stimulability: Vietnamese and English (use SACHL Stimulability Form) ☐ Other assessments: speech perception, phonological awareness, speech consistency, language

4. SACHL Single Word Scoreform: Vietnamese and English

English

Target word	Standard production (IPA)	Adult (dialectal) production	Child production	Cue		Reason for mismatch*
				Spont.	Imitation/ other	

% intelligibility of single words: _____

*Reasons for mismatches

- Developmental (DEV): phonological processes
- Dialect (DIA): variation in consonants, vowels or tone due to dialect
- Cross-linguistic transfer (CLT): influence of one language on another
- Ambient phonology (AMB): influence of other speakers in their environment
- True error: (ERR) mismatches that cannot be explained by any of the above

4. SACHL Single Word Scoreform: Vietnamese and English

Vietnamese

Target word	Standard production (IPA)	Adult (dialectal) production	Child production	Cue		Reason for mismatch*
				Spont.	Imitation/ other	

Non-shared consonants: Seek support from assessment partners (red)
Shared, allophones: Seek support from assessment partners (yellow)
Shared: attempt to transcribe and seek support if needed (green)

% intelligibility of single words: _____

*Reasons for mismatches

- Developmental (DEV): phonological processes
- Dialect (DIA): variation in consonants, vowels or tone due to dialect
- Cross-linguistic transfer (CLT): influence of one language on another
- Ambient phonology (AMB): influence of other speakers in their environment
- True error: (ERR) mismatches that cannot be explained by any of the above

5. SACHL Stimulability Form: Vietnamese and English

Vietnamese consonants Northern (N), Central (C), Southern (S)

Recommended vowels for CV, VC, CVC: /e, ɔ, iː/ (shared) across 10 trials (Miccio, 2002)

Target sound	Grapheme	Dialectal variants	Isolation	CVC (3 trials /e, ɔ, iː/)	VC (3 trials /e, ɔ, iː/)	CVC (3 trials /e, ɔ, iː/)	Comment
/p/	p	/b/ (S)					
/b/	b	-					
/t/	t	-					
/d/	đ	-					
/tʰ/	th	-					
/ʈ/	tr	/c/ (N, S) /ʦ/ (N)					
/c/	ch	/ʦ/ (N)					
/k/	c, k, q	/kw/ → /w/ (S)					
/m/	m	-					
/n/	n	/l/ (N)					
/ɲ/	nh	-					
/ŋ/	ngh, ng	-					
/f/	ph	-					
/v/	v	/j/ (S)					
/s/	x	-					
/z/	d, gi	/j/ (C,S)					
/ʂ/	s	/s/ (N,S)					
/ʐ/	r	/z, r/ (N); /j, ɣ/ (S)					
/x/	kh	-					
/ɣ/	gh, g	-					
/h/	h	-					
/l/	l	/n/ (N)					
/w/	u, o	/ʔw/, /hw/ /w/					

Non-shared consonants: Seek support from collaborators (red)
Shared, allophones: Seek support from collaborators (yellow)
Shared: attempt to transcribe and seek support if needed (green)
Note /ʔ/ not included in stimulability test. Dialectal variants: (N) = Northern Vietnamese; (C) = Central Vietnamese; (S) = Southern Vietnamese. Examples of dialectal variants in the table are based on word initial position. Common word final dialectal variants include: /ŋ/ → /ŋ^{m}/ (N, C, S); /k/ → /k^{p}/ (N, C, S); /t/ → /k/ (S); /k/ → /t/ (S), /n/ → /ŋ/ (S).

Margetson, K. & McLeod, S. (2026). Speech Assessment of Children's Home Languages (SACHL): Vietnamese and English. Version 1.1 https://www.csu.edu.au/research/multilingual-speech/speech-assessments/SACHL

6. SACHL Information for Families

Bilingual speech assessments

Bilingual speech assessments involve listening to how children say sounds in words and conversation. We assess speech in English and Vietnamese. This helps the speech pathologist decide if children's speech is developing well or they need speech therapy.

Help us assess your child

Let us record you and your child saying Vietnamese words
(We need an example of a correct production of the word from an adult speaker to help us decide if your child is correct. Used for assessment purposes only)

Ask your child to name pictures in Vietnamese

Play and talk with your child in Vietnamese

Listen and tell us which sounds and words are hard for your child to say in Vietnamese

Naming pictures

Ask them what it is: "Đây là con...? [What's this]?"

If they don't know the word, say "Voi. Con nhắc lại được không? [Elephant. Can you repeat that?]"

Listening to sounds

People who do not speak Vietnamese (like your speech pathologist) will find it hard to know whether your child can say these Vietnamese sounds. Listen to your child say these sounds and tell your speech pathologist what you think.

Letter	Sound	Example word
p	/p/	pin (battery)
t	/t/	táo (apple)
th	/t̪ʰ/	thịt (meat)
tr	/ʈ/	trứng (egg)
ch	/c/	chanh (lime)
c, k, q	/k/	kẹo (candy)
nh	/ɲ/	nho (grapes)
ngh, ng	/ŋ/	ngủ (sleep)
s	/ʂ/	sữa (milk)
r	/ʐ/	rùa (turtle)
kh	/x/	khóc (crying)
gh, g	/ɣ/	gà (chicken)

7. SACHL Information for Interpreters

Bilingual speech assessments

Bilingual speech assessments involve listening to how children say sounds in words and conversation. We assess speech in English and Vietnamese. This helps the speech pathologist decide if children's speech is developing well or they need speech therapy.

Help us assess your child

Check with family if they consent for us to record their child and themselves saying words in Vietnamese

(We need an example of a correct production of the word from an adult speaker to help us decide if your child is correct. Used for assessment purposes only)

Help the family ask their child to name pictures, play and talk in Vietnamese

Listen and tell us which sounds and words are hard for the child to say in Vietnamese

Naming pictures

Ask them what it is: "Đây là con...? [What's this]?"

If they don't know the word, say: "Voi. Con nhắc lại được không? [Elephant. Can you repeat that?]"

Listening to sounds

People who do not speak Vietnamese (like the speech pathologist) will find it hard to know whether the child can say these Vietnamese sounds. Listen to the child say these sounds and tell your speech pathologist what you think.

Letter	Sound	Example word
p	/p/	pin (battery)
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ngh, ng	/ŋ/	ngủ (sleep)
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r	/ʐ/	rùa (turtle)
kh	/x/	khóc (crying)
gh, g	/ɣ/	gà (chicken)

8. SACHL Analysis Form: Vietnamese and English

Independent analysis Highlight or list the features present

	English	Vietnamese
Shared consonants	/p b t d k m n ŋ f v s z h l j w/	/p b t d k m n ŋ f v s z h l/ **Semivowels** /j w/
Non-shared consonants	/g θ ð ʃ ʒ ʧ ʤ ɹ/	**Standard Vietnamese** /ʈʰ ʈ c ʔ ɲ ʂ ʐ̟ x ɣ/ **Dialectal variants** /kᵖ ŋᵐ r ʦ/
Sound classes	nasals plosives glides liquids fricatives affricates	nasals plosives glides liquids fricatives semivowels
Positional constraints		
Consonant clusters	**Syllable initial** **Syllable final**	Consonant clusters do not occur in Vietnamese
Vowels	Concerns? Yes / No If yes, highlight which vowels are present in inventory: /iː, ɪ, æ, ɐː, ə, ɜ, ɚː, ʊ, ɐ, oː, ɑe, æɔ, ɔɪ, æɪ, əɯ, ɪə, eː, ʊə/ (Australian English)	Concerns? Yes / No If yes, highlight which vowels are present in inventory: /i, e, ɛ, ɯ, u, o, ɔ, ɤ, ɑ, ă, ɤ̆, ĕ, ŏ, ie, uo, ɯɤ/
Tones	Tones do not occur in English	Concerns? Yes / No If yes, highlight which tones are present in inventory: (1) level (2) falling (3) creaky (4) dipping-rising (5) rising and (6) constricted
Syllable shapes	$C_{(0-3)}VC_{(0-4)}$ List shapes present:	$C_{(0-1)}w_{(0-1)}VC_{(0-1)}w_{(0-1)}T$ [w=semivowel; T=tone] List shapes present:
Word length	Monosyllables, disyllables, 3-syllables, 4-syllables, 5+ syllables	Syllables in Vietnamese are written and spoken separately (like monosyllables).

8. SACHL Analysis Form: Vietnamese and English

Syllable stress	**SS** e.g., *rainbow* **Sw** e.g., *carrot* **wS** e.g., *giraffe* **Sww** e.g., *elephant* **Sws** e.g., *dinosaur* **wSw / wSs** e.g., *potato* **Swsw** e.g., *watermelon* **Other polysyllabic words** e.g., *hippopotamus* **Is stress unusually equal across syllables?** ☐ yes ☐ no	Vietnamese is a syllable-timed language. Stress is used across a sentence, like in English to emphasise certain words, but not within words. English is a stress-timed language. Bilingual Vietnamese-English speakers may use equal stress rather than strong and weak syllable contrasts in English words.

Relational analysis

	English	Vietnamese
Percentage of consonants correct (PCC) Accept dialectal variants as correct		
Developmental mismatches: **P**honological processes		
Loss of phonemic contrast List phoneme collapses		
Dialectal mismatches: variation in consonants, vowels or tone due to dialect		
Cross-linguistic transfer mismatches: influence of one language on another		
Ambient phonology mismatches: influence of other speakers in their environment		
Are mismatches functionally equivalent?		

Margetson, K. (2024). *Moving Beyond Monolingual Practices with Multilingual Children: Learning from Vietnamese-English–Speaking Children, Families, and Professionals*. [Doctoral Thesis, Charles Sturt University]. Charles Sturt University.

Based on Children's Independent and Relational Phonological Analysis (CHIRPA) (Baker, 2017, McLeod & Baker, 2017)

9. SACHL Summary and Diagnosis Form

This form is to assist speech pathologists in summarising key findings from both Vietnamese and English speech assessments, and questions to consider that guide diagnostic decision-making.

Areas of assessment	Key findings
Case history	
Language history (e.g., language proficiency, age of acquisition, exposure, daily use, dominance)	
Oral structure and function	
Hearing	
Other assessment findings (e.g., phonological awareness)	

Speech assessment

	Vietnamese	English
Strengths		
Areas of need		
Similarities in speech production		
Differences in speech production		
Intelligibility		

9. SACHL Summary and Diagnosis Form

Tips for using normative data

If multilingual norms are available: Check characteristics of multilingual normative sample – e.g., age, exposure, proficiency and if it matches your client before using them in diagnostic decision-making.

Monolingual norms available: Use these as a list of possible features / developmental progression that **may** be present in your client's speech. Do not use these as set criteria to distinguish between typical speech and SSD.

No norms available: Consider general speech development norms that are consistent across many languages. Children can correctly produce most consonants by 5 years old (McLeod & Crowe, 2018) and be understood by everyone by 5 years old

Comments about child's speech in relation to known and relevant norms:

Speech in both languages in their everyday life

a) Is there evidence of SSD in each language that the child speaks, or only one language?

b) Is the child's current speech abilities impacting their ability to effectively communicate with everyone in their life? (e.g., consider results of Intelligibility in Context Scale – ICS)

c) Is their speech limiting their ability to take part in daily activities and participate across all their environments? (e.g., consider results of Speech Participation and Activity Assessment of Children - SPAA-C)

d) Are their family concerned and would they like to improve their speech?

Family and/or interpreter's comments:

Assessment summary, diagnosis and recommendations:

Goals for intervention:

10. References: Vietnamese-English SACHL

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