

## Seeing Speech: A Pronunciation Toolkit for Indigenous Language Teaching and Learning

Pronunciation can present a serious challenge for language teachers and learners (e.g., Munro & Derwing 2015). In the context of Indigenous languages in particular, this can be compounded by a number of factors, including small numbers of speakers and teachers, a paucity of pedagogical resources and clear descriptions of sound systems, and the pressures faced by heritage learners to authentically preserve their ancestral language (Carpenter 1997; Hinton 2011; Hinton & Ahlers 1999). Latent speakers may be inhibited from speaking by perceived concerns over their pronunciation, particularly in the presence of elders (Basham & Fatham 2008), and other learners may face similar social and linguistic challenges. Despite these hurdles, pronunciation is considered by many to be an important aspect of Indigenous language learning, and one which requires creative community-oriented solutions (AUTHOR & Kell 2015; Carpenter 1997).

Towards this end, we have developed a pronunciation learning tool that incorporates ultrasound technology, giving learners a visual aid to help them learn to articulate challenging or unfamiliar sounds, for example “back of the mouth” consonants (e.g. /k/ vs. /q/). Ultrasound is used to create videos of a model speaker’s tongue movements during speech, which are then overlaid on videos of an external profile view of the model’s head to create ultrasound-enhanced pronunciation videos for individual words or sounds (Abel et al. 2015). A key advantage of these videos is that they allow learners direct access to the articulatory shapes and movements that are involved in pronouncing challenging words or sounds; learners are able to see how speech is produced rather than just hear and try to mimic it.

Although ultrasound-enhanced videos were originally developed for commonly taught languages such as Japanese and French, there has been widespread interest from Indigenous communities in Western Canada to develop their own customized videos. To date, we have partnered with communities in Alberta and British Columbia to develop videos for four languages: SENCOTEN, Secwepemc, Halq’emeylem, and Blackfoot. Community-driven and capacity-building, these projects involved training community members in how to produce customized ultrasound-enhanced videos using our toolkit. The resulting videos will be featured in our presentation, along with demonstrations of how and why to use ultrasound in pronunciation teaching. Our goal is to show that the ultrasound-enhanced videos can help to address some of the challenges of pronunciation learning in Indigenous languages by giving learners a new way to understand pronunciation that focuses on seeing speech.

[word count = 396]

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