

## Developing Ultrasound Overlay Videos for SENĆOŦEN Language Learners

This paper reports on an initiative to develop a pronunciation training tool for learners of SENĆOŦEN (Salish: Canada). In acquiring new speech sounds, second language learners rely on both acoustic and articulatory information. Ultrasound has been demonstrated to be effective for pronunciation instruction, as it allows learners to visualize tongue movements during speech. However, ultrasound-based instruction can be difficult to implement with large groups or with learners wanting to learn independently. To address these limitations, we developed a technique for creating ultrasound overlay videos which combine ultrasound images of tongue movements with external profile views of a speaker's head. Ultrasound is particularly useful in SENĆOŦEN, as its inventory includes many lingual articulations that are difficult to distinguish without visual cues, such as velar/uvular contrasts, and a complex coronal series (e.g., t', t'<sup>h</sup>, tʃ, ʃ, λ, ł, l, l'). SENĆOŦEN is critically endangered, but efforts are underway to reawaken the language. Children participate in immersion programs, but parents need language-learning opportunities that are adaptable to their schedules and needs. We developed a series of videos for distribution to community members, in particular parents, giving them opportunities to improve their pronunciation to better communicate with their children in their heritage language.

[Word count = 199]