French Phonology Acquisition

Unit Assessment Liaison Report Matthew Williams

> World Languages and ELL April 2020



The Six Stage Process...

Outcome Definition

Assessment Research and Design

Pilot Assessment Tools and Processes

Administer Specific Assessment

Data Analysis

Supporting Evidence-Based Change



...has taken us on a bumpy ride!

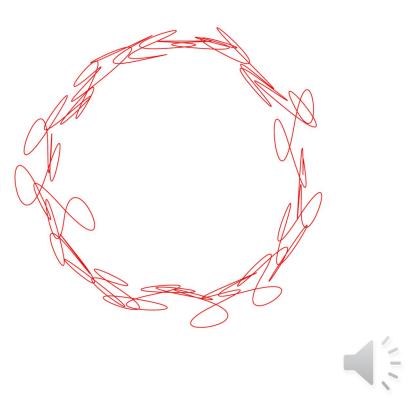
It all started with a question:

• How can we help students improve their pronunciation of certain French sounds?

What is stopping them?

- 1. Perception issues
- 2. Production issues

Obstacle!



Stage 1 - Outcome Definition

Early 2019

Discussions over French syllabi SLOs

No SLO for pronunciation

Proposal

- 1. Do the study
- 2. Date will show if goal is realistic



Stage 2 - Assessment Research and Design (1/4)

Mid 2019

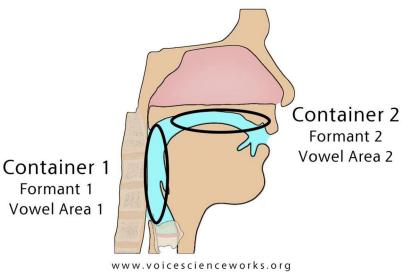
Student over-reliance on auditory channel, so...

Visual Reinforcement!

• Spectrogram



What does Praat do?





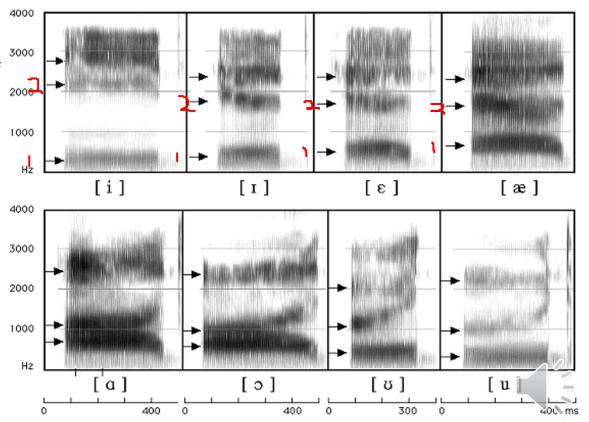
Stage 2 - Assessment Research and Design (2/4)

Spectrogram

- Graph that measures evolution of a sound
 - Y axis = Frequency (Hz)
 - X axis = time
 - Shading = intensity of signal

How do you read it?

- Shows frequency of resonances in the mouth
 - \circ Formant 2 (F2) front of mouth
 - Formant 1 (F1) back of mouth
- Each vowel has unique frequency pattern



Stage 2 - Assessment Research and Design (3/4)

Mid 2019

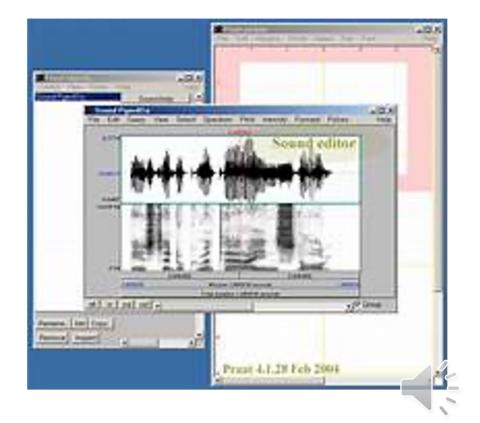
Student over-reliance on auditory channel, so...

Visual Reinforcement!

Praat = basis for a tool / procedures

Original Procedures for Students

- 1. Listen to target sound
- 2. Play recorded target sound w/ Praat
 - a. Study spectrogram
- 3. Produce target sound w/ Praat
 - a. Compare spectrograms



Stage 2 - R & D (4/4)

Late 2019

Not enough information for students!

- Too confused
- Couldn't see the point

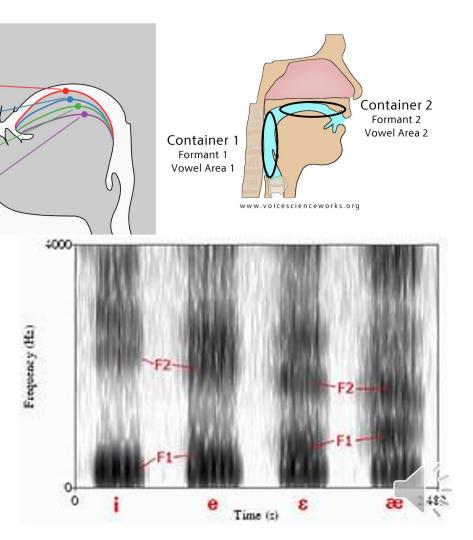
Revised Procedures!

- 1. Pre-assessment by professor
- 2. Select a target sound from professors' list
- 3. Analyze diagram of mouth for that sound \rightarrow practice

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- 4. Analyze target sound in various environments
- 5. Analyze diagram of formant locations
- Play target sound w/ Praat → analyze spectrogram (back to step 4)
- 7. Record themselves tyring target sound w/ Praat \rightarrow compare spectrograms
- 8. Post-assessment by professor of sounds on list
 - a. Rubric (doesn't meet, approaches, meets)



Stage 3 - Pilot Assessment Tools and Processes

Spring 2020

Venue = WELL Computer Lab (Room 310)

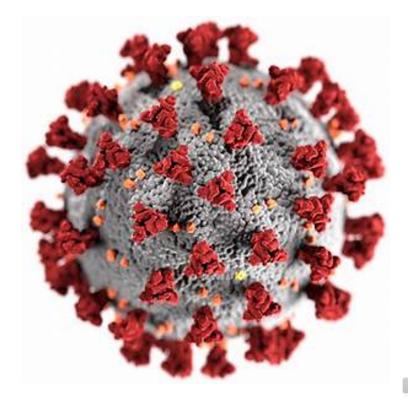
- 1. Installed Praat on computers
- 2. Training of lab aides

Stay at home order halted process!

Remote assessment too difficult now

Plan = Summer Pilot

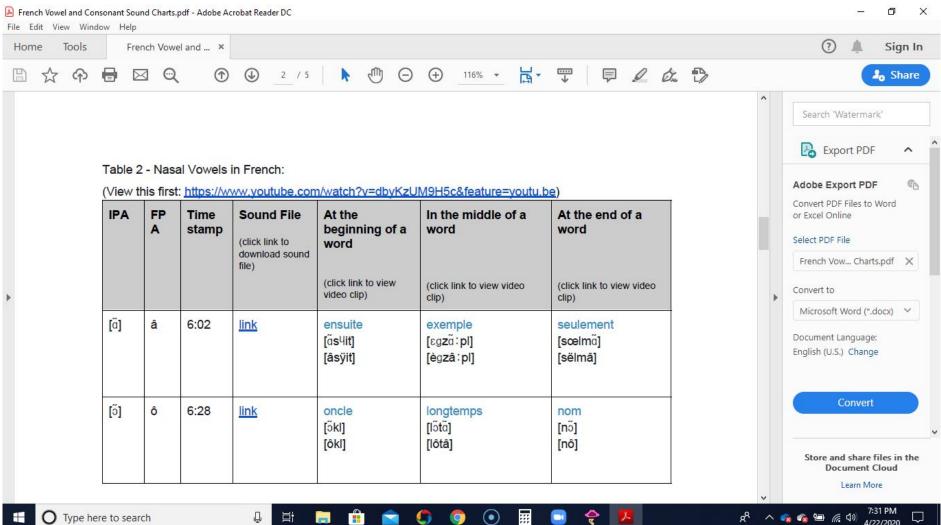
- 1. Procedures video for students
- 2. Tutoring time to help them



Thank You!

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