VOCE VISTA IN THE DICTION CLASSROOM: PRACTICAL APPLICATIONS

Dana Zenobi, DMA | Butler University
Assistant Professor of Music (Voice) | dzenobi@butler.edu

PURPOSE: To share ways Voce Vista and other spectrogram programs can be used to enhance learning outcomes in Vocal Diction courses.
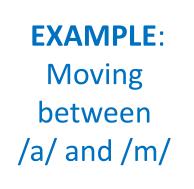
INTRODUCTORY EXERCISES

Designed for students new to spectrogram programs and/or students with little background in vocal acoustics.

Vibrato Work: Nasals & Laterals

EXERCISE: Alternate between one vowel and one consonant on a single sung pitch, noticing vibrato. First attempt in each example shows inconsistent vibrato. Second shows improvement.
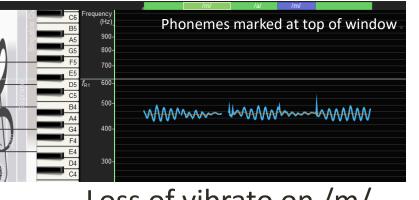
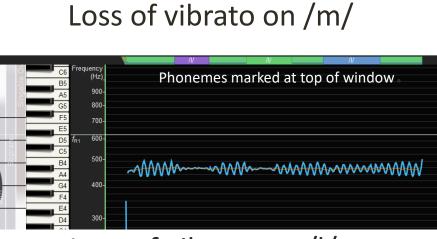**VOCE VISTA SETTINGS:** Spectrogram window, display pitch, turn spectrogram off.

EXAMPLE: Moving between /a/ and /m/

Loss of vibrato on /m/ • Consistent vibrato on /a/ and /m/

EXAMPLE: Moving between /o/ and /l/

Loss of vibrato on /l/ • Consistent vibrato on /o/ and /l/

Students may customize phoneme choices to match the challenges in their repertoire.

Single-note exercises were developed by Rachelle Jonck & Derrick Goff, Bel Canto Boot Camp.

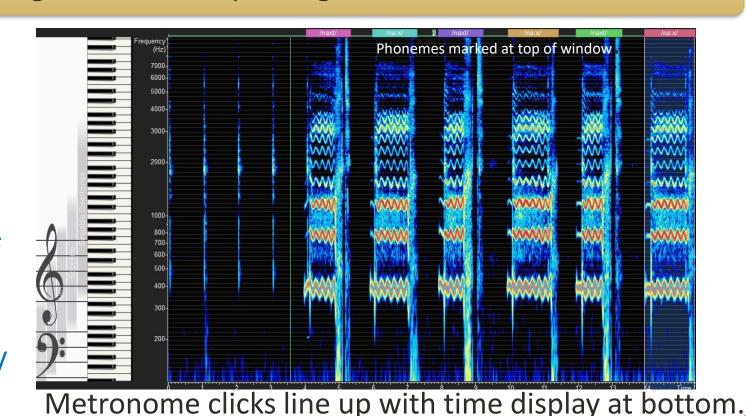### Conceptualizing Lengthened Vowels

EXERCISE: Choose words or syllables that contrast standard and lengthened versions of the same vowel. Sing on a single pitch in a steady tempo. Notice duration of vowel vs. consonant.

VOCE VISTA SETTINGS: Use Spectrogram window, spectrogram on. Metronome at 60.

EXAMPLE: Nacht vs. nach /naxt/ vs. /naːx/

Screenshot shows five metronome clicks, followed by sung alternation of /naxt/ and /naːx/ in tempo on G4.

Notice longer duration of /aː/ in /naːx/

Metronome clicks line up with time display at bottom.
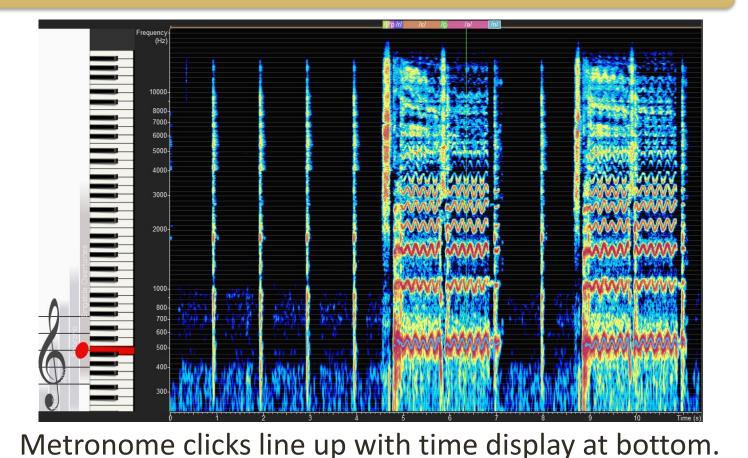
Timing Initial Consonants

EXERCISE: Choose words or syllables with initial consonants. Fricatives are easier to visualize than plosives Aim to articulate consonants before the metronome click, beginning the vowel

VOCE VISTA SETTINGS: Use Spectrogram window, spectrogram on. Metronome at 60.

EXAMPLE: Sprechen /ˈʃprɛ.çən/

Notice articulation of /ʃpr/ before beat and vowel beginning on beat.

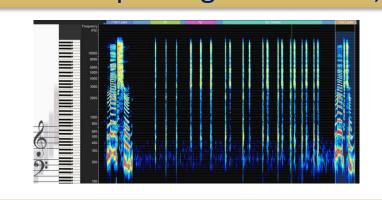Students may choose different examples that match their repertoire.

Metronome clicks line up with time display at bottom.

INTERMEDIATE EXERCISES

Designed for students with some familiarity with Voce Vista.

Refining Consonant Clusters

EXERCISE: Identify challenging consonant cluster. Speak full word. Speak first consonant phoneme several times. Speak second consonant several times. Speak both consonants in sequence. Speak full word.

VOCE VISTA SETTINGS: Spectrogram window, display spectrogram, do not display pitch.

EXAMPLE: Mädchen /ˈmɛːt.çən/ Cluster: /tç/

EXAMPLE: Liebchen /ˈliːp.çən/ Cluster: /pç/

Clarifying Diphthong Articulation

EXERCISE: Use visual display to refine second vowel on sung pitch.

VV SETTINGS: Spectrogram window

EXAMPLE: auch /aox/ Notice second vowel

Upper overtone dampening second /o/

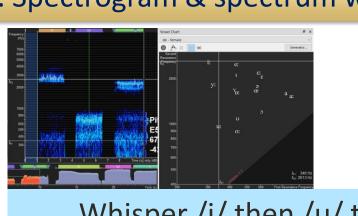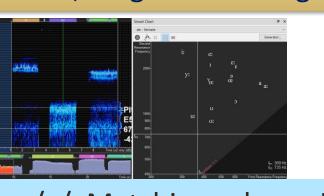**EXERCISE:** Chiaroscuro whisper* to shorten transition time between diphthong vowels. Repeat same exercise on sung pitch.

VV SETTINGS: Spectrogram window, can add vowel chart rulers

EXAMPLE: teure /ˈtɔø.rə/ Notice transition

Slow vs Fast transition Vowel rulers set for /ɔ/

Transition & second vowel Vowel rulers set for /ø/
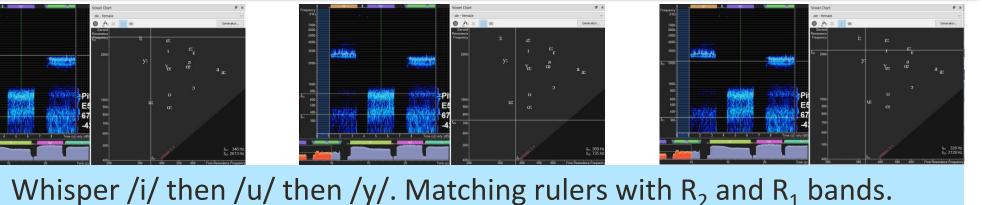
*Developed by Kenneth Bozeman

Focusing Mixed Vowels

EXERCISE: Chiaroscuro whisper tongue vowel, lip vowel, then mixed vowel. Use vowel chart to evaluate accuracy of each. Follow same process on sung pitch. Use long-term average spectrum (LTAS) to set rulers.

VOCE VISTA SETTINGS: Spectrogram & spectrum windows, long-term average spectrum, vowel chart.
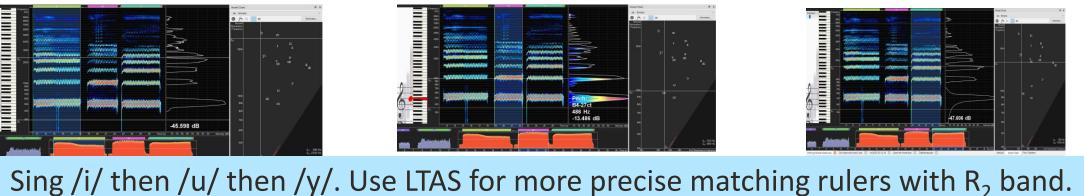
EXAMPLE: Mixed vowel: /y/ Tongue vowel: /i/ Lip vowel: /u/

Whisper /i/ then /u/ then /y/. Matching rulers with R_2 and R_1 bands.

N.B. With a treble voice singing at C5 (~500 Hz), R_1 is likely raised to tune with F_0.

Sing /i/ then /u/ then /y/. Use LTAS for more precise matching rulers with R_2 band.

Open and Close Vowel Target Practice

EXERCISE: Chiaroscuro whisper vowel. Sing vowel. Use LTAS and vowel chart rules to evaluate each

VV SETTINGS: Both windows, LTAS, vowel chart.

Open /ɛ/ whisper and sing (a little too open).

Close /e/ whisper and sing (more successful).

CANVAS ASSIGNMENT & STUDENT WORK
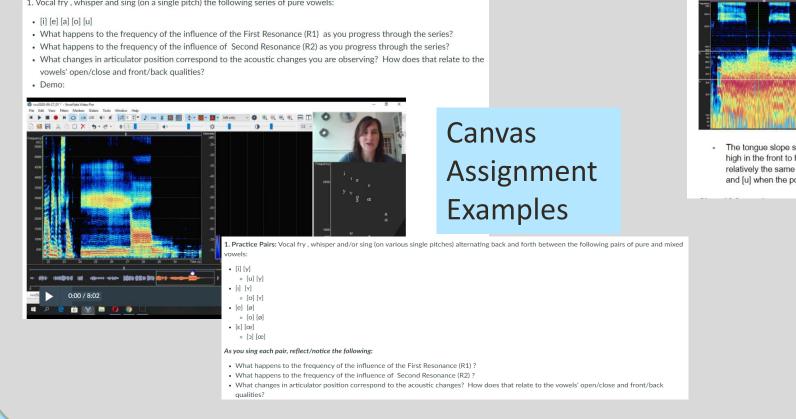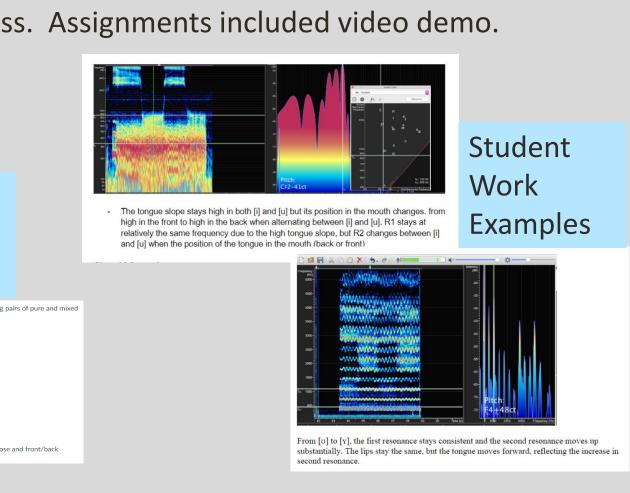
Student Work Examples

ADVANCED EXERCISES

Designed for students who have taken Vocal Pedagogy. Forge connections between acoustics and diction.
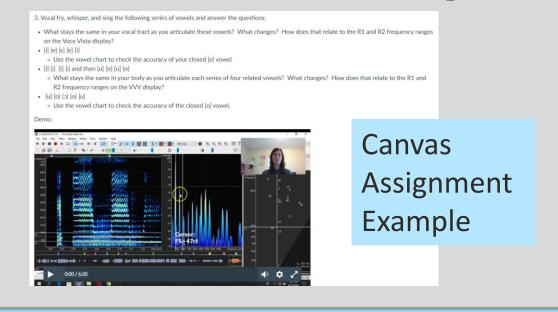
Forward / Back Pairs: Exploring R_2

CANVAS ASSIGNMENTS AND STUDENT WORK: Introductory Canvas assignment observing R_1 and R_2 with cardinal vowels. Next assignment asks students to compare forward and back pairs with similar degree of closeness. Assignments included video demo.
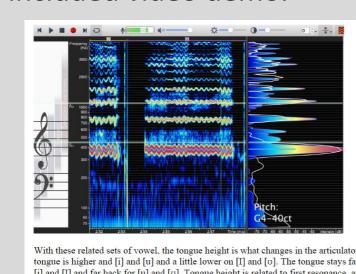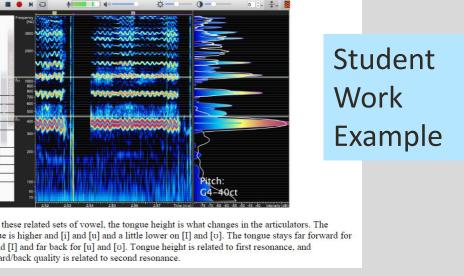
Canvas Assignment Examples

Student Work Examples

Close / Open Pairs: Exploring R_1

CANVAS ASSIGNMENTS AND STUDENT WORK: Similar to the work above, this assignment asked students to move between open and close versions of various vowels and reflect on their observations of R_1. Assignments included video demo.
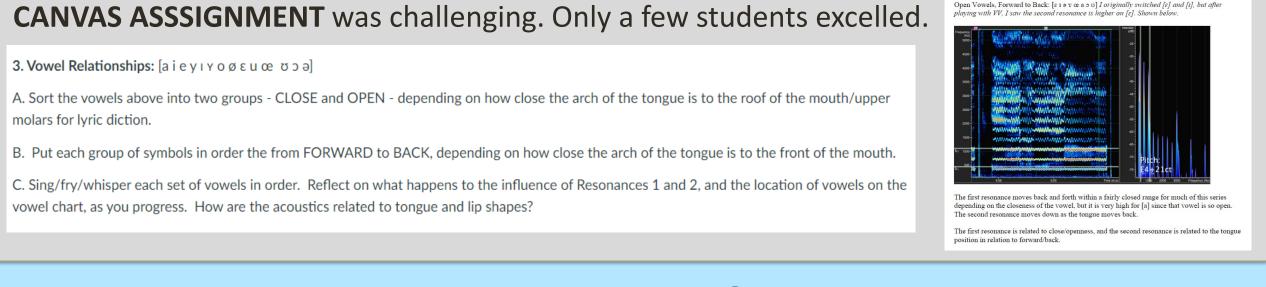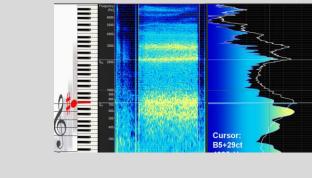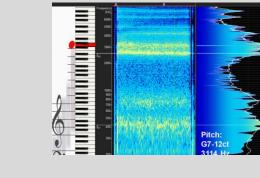
Canvas Assignment Example

Student Work Example

Sort the Vowels

CANVAS ASSIGNMENT was challenging. Only a few students excelled.

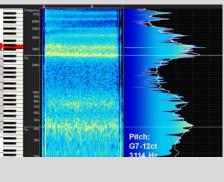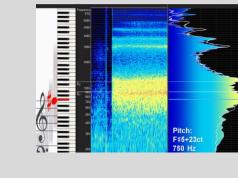### Spectrum Vowel ID Game

IN-CLASS REVIEW: Show images of whisper / vocal fry vowels. Can you ID the vowel by looking?

Answers: /ɛ / /i/ /ɑ/

REFERENCES & RESOURCES

- Bozeman, Kenneth W. *Practical Vocal Acoustics: Pedagogic Applications for Teachers and Singers.* Pendragon Press. 2014.
- Bozeman, Kenneth W. *Kinesthetic Voice Pedagogy 2.* Inside View Press. *2021*
- http://www.kenbozeman.com/resources/Chiaroscuro_Whisper_Vowel_Modeling.pdf
- Jonck, Rachelle and Derrick Goff. *The Vaccai Project: A practice diary exploring the historically informed performance practice of the bel canto style inspired by the classic lessons of Vaccai.* 2022.
- https://belcantobootcamp.com/
- https://www.sygyt.com/en/support/frequently-asked-questions/