Resource Evaluation: Pronunciation Apps

Bethany Anderson

Azusa Pacific University

Introduction

In many (if not most) ESL and EFL contexts, a student's cell phone functions as their personal computer and is always within arm's reach. In fact, many of my students do not own a home computer but easily manage any necessary online transactions with the help of their smartphone. For this reason, learning apps seem like a logical first choice for a teacher searching for supplemental pronunciation resources for students. Apps are built to be easily navigable, interactive, and can be used anytime a student has a free minute. However, after a lengthy search to locate pronunciation apps that teachers could recommend to their students for additional pronunciation practice, I discovered that this seemingly simple goal is just as attainable as finding the proverbial 'needle in a haystack.'

After a weeks-long search and hours spent poring over available options, I had ruled out just as many apps as I had found. Some used British English (I wanted to find apps utilizing North American English [NAE] for relevance to ESL learners), some were cost prohibitive (one popular app requires a monthly subscription fee to unlock the majority of the content), others were poorly designed with disorganized content that was difficult to navigate, and a few simply didn't function properly. As I sorted through dozens of apps, I began to wonder if there were any apps in existence that would be worth recommending to students.

I was finally able to locate three apps that meet the basic minimum requirements of providing organized, accurate content useful for supplemental pronunciation practice. These apps, evaluated below, are: *Juna, Pronuncian*, and *Speech Sounds Visualized.*

<center>*Juna*</center>

Bartholomew, A. (2018). *Juna: Your accent coach*. Retrieved from Apple AppStore on iPhone.

Overview

Created by an English teacher, Ann Bartholomew, with input from a linguistic consultant, *Juna* is an app for "students who know English well, but have difficulty being understood when they speak." Bartholomew describes the purpose of the app: "so my students and others could understand what happens inside their mouths as they speak."

Juna uses an animated illustration of a mouth to show how sounds are produced, including tongue placement, air flow, and voiced/voiceless quality (indicated by vibrating/still vocal chords and different colored arrows (yellow for voiced, blue for voiceless). Articulation explanations are divided into 12 Sound Lessons, grouped by "sound families" (e.g., plosives, 'single vowels', 'slide vowels', affricates, glides).

The Sound Lessons are followed by two practice sections: the first containing three subcategories of *Consonants, Vowels*, and *Comparisons,* and the second *Consonants, Vowels,* and *Advanced Practice*. *Practice 1* introduces the target sound and provides three short practice words containing that segment (the *Comparisons* section provides two sets of minimal pairs contrasting commonly confused sounds such as /ɪ/ of *ship* and /iy/ of *sheep*). Students can use a "mirror' function using their phone's camera to see the shape of their mouth as they practice each word.

The *Practice 2* section includes 20-30 practice words with the target sound occurring in different positions in the word. Students can listen to each word as a whole, as well as broken down into its individual sound segments. The *Advanced Practice* section focuses on the r/l

contrast and numbers. Both practice sections allow students to record themselves saying the word and compare their pronunciation with the native speaker's.

Finally, a quiz section includes 24 common problem areas including l/r, s/z, p/b, etc. Students listen to sets of minimal pairs and select which one they heard. In the easier level, minimal pair sets are grouped together, while in the more difficult level, minimal pair sets are in random order.

Analysis

Strengths:

- The app was created by an English instructor, and the experience Bartholomew brings to her explanations is apparent. Articulatory explanations are clear and use simple, understandable language.

- Audio is clear and accent is standard North American English (NAE), using several different voices.

- The app is generally easy to navigate and well-organized, and the function of each category is clear.

- The app doesn't rely on knowledge of the International Phonetic Alphabet (IPA). Although IPA symbols are included in some sections, they are used alongside an orthographic representation of the sound and an example word (e.g., practice for /ɪ/ shows: *i - ɪ - if*).

Weaknesses:

- This app is only available for iPhone, so it would not be something that could be recommended to all students in a class.

- Although the app's *About* section lists a variety of languages, (Arabic, Chinese, French, Japanese, Korean, Portuguese, Spanish, and Thai) it was unclear how to select a student's native language, and Arabic translations appeared automatically for some exercises. This might be an issue that could be resolved by contacting the customer service email listed, however.

- On the start page, it was not immediately clear that there was a welcome video that should be watched before beginning the sound lessons. If students were to skip over this indroductory video, lessons could be quite difficult to follow.

- When explaining the difference between tense and lax vowels, the explanation is provided that lax vowels are produced with a "relaxed tongue." Describing the tension as existing in the tongue only does not fully explain the tense/lax distinction, since muscle tension exists in more articulatory muscles than the tongue alone (Celce-Murcia, Brinton, & Goodwin, 2010, p. 117). Since tongue tension may be difficult for students to feel, it would be helpful to point out tension/relaxed quality in the mouth and cheeks as well.

- Practice is at the word level only; no sentence or discourse-level practice is included.

- Perhaps the most serious drawback of this app is that the animated illustration does not clearly illustrate the position of the mouth. The only view is from the side, and while a front view of the mouth does occasionally (and inconsistently) appear, this image is not clear enough to be helpful. To make matters worse, the animated diagram is an unrealistic representation of a person—perplexingly, it more closely resembles a strange snake or imaginary animal.

Summary

As its creator intended, *Juna* does allow students to begin to "understand what happens inside their mouths as they speak." The animations illustrate air flow, tongue placement, and voiced/voiceless quality. Unfortunately, the app falls short when it comes to providing a clear image of mouth shape or a realistic representation of what a real person looks like when articulating the target sound. Overall, it is my opinion that the illustrations would have limited effectiveness in teaching students how to articulate the target sounds. However, this downside is counterbalanced by the clear and simple articulatory explanations accompanying the illustrations, which make it ideal for lower levels, and the app could be a good fit for high beginning to low intermediate level students who are looking for introductory practice with specific segmentals.

Pronuncian

Nguyen, N. L. (2008). *Pronuncian: Pronounce sounds in American English*. Retrieved from

Apple AppStore on iPhone.

Overview

Pronuncian teaches the manner of articulation of English sounds and allows students to practice individual segmentals at the word level. For each sound, a diagram and explanation of the manner of articulation is provided, along with a video corresponding to that particular segmental, taken from the *Rachel's English* YouTube channel. It also details the different ways the sound can be spelled in different words (e.g., for /ɪ/: y as in *symbol*, i as in *lip*), and provides a list of example words to practice, organizing the words by where the sound appears (initial, mid, or final position). There is a practice feature where students can repeat the example words

using their phone's microphone and if the voice recognition picks up the correct word, it awards

the student up to three stars. The International Phonetic Alphabet is used to represent sounds;

however, the common spelling of the sound is also provided (e.g., *ɔ/aw*, *ɛ/short e*).

Analysis

Strengths:

- The organization and layout of the app is simple and easy to navigate.

- The example words use clear, NAE pronunciation recorded by several different native speakers.

- Each sound segment includes articulation instruction with a diagram and explanation, along with a Rachel's English instructional English video (which are quality videos with clear explanations of the manner of articulation).

- Example words are grouped by whether the target sound occurs in the initial, middle, or end position of the word so learners can compare what the segment sounds like in different positions.

- Different orthographic representations of the sound are presented, with several example words for each spelling.

Weaknesses:

- Practice is only at the word level and does not allow learners to practice hearing or producing the sound at the sentence or discourse level.

- Grammatical errors within the app such as "recents lessons," "rate us app," and "share to your friends" makes it clear that the app was built by a nonnative English

speaker with limited proficiency and calls into question the reliability of the rest of the content.

- Numerous pop-up ads are distracting and bothersome.

- The voice recognition function could cause frustration for students if they are forced to keep repeating a word unsuccessfully with no specific feedback on what they are doing wrong. (Even as a native speaker, my pronunciation of the word *end* was consistently interpreted as *and*, prompting multiple 'try again' messages.) Conversely, words might be recognized even if they are not pronounced accurately.

- While the use of the *Rachel's English* pronunciation videos within the app may not technically be a copyright infringement, it is 'repackaging' content that isn't original to the app creator, which could be construed as deceptive.

Summary

Overall, *Pronuncian* is a no-frills app, but it does provide a basic overview of English sounds which could be helpful, especially for intermediate level students who need extra work with the pronunciation of a few specific segmentals. Notably useful is the presentation of different common spellings for each sound, a feature that could prove valuable for many students, since the sound-spelling correlation can be one of the most confusing aspects of English pronunciation.

Speech Sounds Visualized

Pullman Regional Hospital (2019). *Speech sounds visualized: Pronunciation and articulation.* Retrieved from Apple AppStore on iPhone.

Overview

This pronunciation app emphasizes articulation instruction with a video of a real person pronouncing each sound (front view of the face) along with an X-ray video showing the placement of the tongue and jaw (side view of the face). The sounds are divided into the categories of consonants and vowels, and the student has the option to view the vowels in either 'standard' (e.g., *i as in tin*) or 'phonetic' (*ɪ as in tin*) representation. Each segment includes a video of the sound being pronounced in isolation (showing the two views mentioned above), an option for the student to record their voice and compare to the native speaker, detailed articulatory instructions, a practice word list with words containing the target sound, and two practice sentences containing words from the practice word list. Unlike the previous two apps reviewed in this evaluation, *Speech Sounds* is not free and currently has a cost of $9.99 (with an additional $0.99 charge to unlock the "R-sound Combinations" section).

Analysis

Strengths:

- The app is easy to navigate and well-organized.
- Descriptions of manner of articulation are very detailed and precise (e.g., part of the *i as in tin* description reads, "to produce this vowel, the tongue remains somewhat high and forward in the mouth, much like the 'e' in 'bee' however now there is not as much tension in the tongue").
- Articulation videos show a real person producing the sound.
- Students can choose between standard letter and IPA representation of sounds.

Weaknesses:

- The app is not free.

- Articulation descriptions might be difficult for lower levels to follow.

- Contains minimal opportunity for practice.

Summary

Although the videos are authentic and high quality, this app does not encourage enough pronunciation practice to merit recommending it to students, especially considering the cost involved. An exception to this might be in the case of advanced level students who want to fine-tune their pronunciation skills. *Speech Sounds* might be put to best use as a resource for teachers; the articulation instructions and videos could serve as a tool to enhance their understanding of how sounds are produced as they prepare to teach pronunciation lessons.

Conclusion

My search revealed great potential for growth in this area of technology. Apps are an ideal platform for learners to receive individualized instruction that is not possible in the classroom setting, but there is a need for more quality pronunciation apps that are reasonably-priced and based on sound theory and pedagogy. Especially lacking are apps providing discourse-level practice and/or focusing on suprasegmental aspects of pronunciation. It is my hope that in the future, TESOL practitioners will become increasingly interested and invested in this area of technology and that learners and teachers alike can subsequently reap the benefits from readily-available high-quality learning apps.

References

Celce-Murcia, M., Brinton, D. M., and Goodwin, J. M. (2010). *Teaching pronunciation: A*

course book and reference guide. New York, NY: Cambridge.