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### **SMARTPHONE APP REVIEW**

### The American English Pronunciation Tutor

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#### **INTRODUCTION**

American English Pronunciation Tutor (Language Arts Digital, 2016) is a smartphone application (app) developed by Language Arts Press in 2016 (Language Arts Press Products). It is available for devices running the Android or iOS operating system and can be downloaded for free from Google Play or iTunes (Language Arts Press Products). Language Arts Press claims that by using the app, users can (1) develop pronunciation of vowel and consonant sounds, accuracy and awareness of grammatical endings, word-level stress, sentence-level stress, and rhythm, (2) improve fluency and grammatical awareness, and (3) develop clear and confident speech. The target population stated for the app is high beginner to advanced learners of American English (Language Arts Press Products).

#### **OVERVIEW**

Ten units are included in the app (Figure 1). Units 1 to 8 cover segmentals, while Units 9 and 10 cover suprasegmentals. In the free version of the app, only Unit 1 is available to the user. In order to access the other nine units, the user must upgrade to the Pro version of the app for \$5.99. Fortunately, Unit 1 has the most lessons out of all of the units. It starts with an introduction to front vowels, followed by five lessons on five front vowels (Figure 2). The other units follow the same basic structure: there is an introduction to the unit and a few lessons.

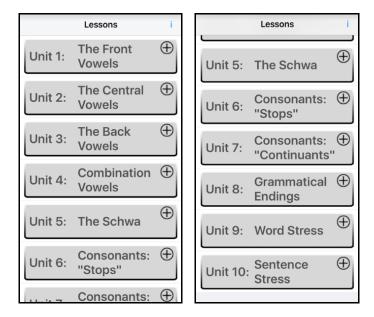
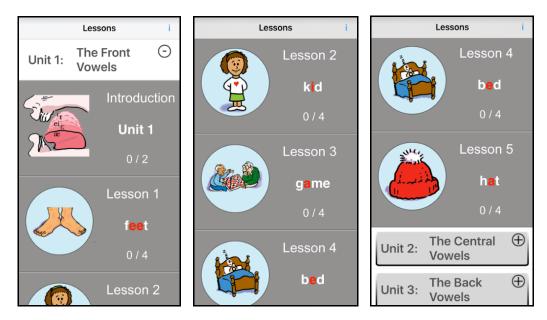
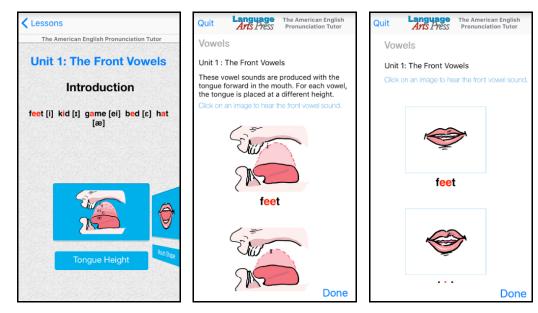


Figure 1. Units included in American English Pronunciation Tutor



*Figure 2*. Lessons included in Unit 1

The Introduction section deals with articulatory aspects of pronunciation. In the case of Unit 1, there is an introduction to tongue height and mouth shape and how they are used to produce front vowels. Both the page for tongue height and the page for mouth shape have images that the user can click on to listen to audio files of the target vowels (Figure 3).



*Figure 3*. Introduction to Unit 1

Inside each lesson following the introduction, there are four exercises: Practice, Contrasts, Listening Quiz, and Speech Recognition. For the Practice exercise, the user listens to a word and records herself saying the word. Then, she can play the recording and compare it to the model (Figure 4).

Quit Arts P	Contraction Contra	erican English ciation Tutor
Unit 1: The Front Vowels - Practice		
Touch the play button next to the word to hear the correct pronunciation. Record yourself and compare.		
3. m <mark>ea</mark> n		
		$\triangleright$
4. either		
	٠	
5. Chinese		
	•	
<ol> <li>The three regions achieved peace.</li> </ol>		
	•	
		Done

Figure 4. Practice exercise for Unit 1

For the Contrasts exercise, the user listens to minimal pairs. The same illustration for mouth shape is provided again for the user to see how the distinction is produced (Figure 5).

Quit Language Arts Press	The American English Pronunciation Tutor	
Unit 1: The Front Vowels - Contrasts		
Touch the play buttons to he	ear the correct pronunciation.	
[i] 🔿	[I] 🔗	
) 1. seat	🕑 sit	
2. feel	🕞 fill	
) 3. least	▶ list	
🕞 4. seek	sick	
5. I beat my brother.	l bit my brother.	
	Done	

Figure 5. Contrasts exercise for Unit 1

For the Listening Quiz exercise, the user listens to a word and decides which of the two words was said. Immediate positive or negative feedback is provided. At the end of the Listening Quiz exercise, the user is prompted to attempt the exercise multiple times for additional practice with the other questions in the question bank (Figure 6).

Quit Arts Press The American English Pronunciation Tutor	Quit Language The American English Pronunciation Tutor	Quit Language The American English Pronunciation Tutor
Listening Quiz Listening Quiz		Listening Quiz
Question 1/5	Question 1/5	Exercise Completed
1. Click the play button.		
		If you wish to do this exercise again, many of the questions will be different.
2. Which word did you hear? 2. Which word did you hear?		Click on the Done button to mark this exercise as completed.
seat	seat	Your score is: 5 / 5
sit	sit	Score: 100 %
		Trygain
Great!	Try again.	
Next		Done

Figure 6. Listening Quiz exercise for Unit 1

For the Speech Recognition exercise, the user chooses a word from the Word Wheel, which includes words containing the target vowels. The user then records herself saying the word, and immediate positive or negative feedback is given, depending on whether the Automatic Speech Recognition system recognizes the recording as the target word (Figure 7).

Quit Language The American English Arts Press Pronunciation Tutor	Quit Language The American English Arts Press Pronunciation Tutor	
Speech Recognition	Speech Recognition	
1. Select a word. feet We mean 2. Click the record button and say the word. Presto Tak	1. Select a word.	
Recognized Word: feet	Recognized Word: sit	
Done	Done	

Figure 7. Speech Recognition exercise for Unit 1

The exercises logically progress from production practice for the target vowels to perception practice for minimal pairs of the target vowels, to perception assessment of those minimal pairs, and finally to production assessment of the target vowels. Since each lesson comes with all four exercises, Unit 1 comprises a total of 20 exercises on front vowels.

## **EVALUATION**

The first thing to note about the *American English Pronunciation Tutor* is that it does not market itself as an app for accent reduction; rather, it focuses on the development of production and perception of segmental and suprasegmental features typical of speakers of American English. This focus on both segmentals and suprasegmentals has the potential to make this app more effective at training users for spontaneous speech, since Derwing, Munro, and Wiebe (1998) found that students who received pronunciation instruction that covered both segmentals and suprasegmentals demonstrated improvement in spontaneous speech abilities.

Another thing to note is that the *American English Pronunciation Tutor* app uses both orthography and International Phonetic Alphabet (IPA) symbols to represent the target vowels. Because English has an opaque orthography (Erdener & Burnham, 2005), almost every sound can be represented by different orthographic shapes, causing orthographic interference for speakers of languages with transparent orthographies like Spanish and Turkish, both of which have one-to-one sound-letter correspondence in pronunciation (Bayraktaroğlu, 2008; Erdener & Burnham, 2005). By including the different spellings for one vowel sound, the app can reduce orthographic interference by training users to recognize some of the common orthographic shapes for a particular vowel sound.

This may be challenging at first, especially for users who speak languages with transparent orthography and who are unfamiliar with the "marked lack of economy in the choice of letter representation" (Bayraktaroğlu, 2008, p. 2) in English, but Erdener and Burnham (2005) have shown that learning an opaque orthography can facilitate the efficient processing of inconsistent information like spelling and pronunciation in the long run, further reducing orthographic interference for these learners.

On the flipside, Saito (2012) pointed out that pronunciation activities should move away from controlled, drill exercises and towards meaning-oriented communicative exercises in order to be more effective at training students for improvement in spontaneous speech abilities. In the *American English Pronunciation Tutor* app, all four exercise types (Practice, Contrasts, Listening Quiz, and Speech Recognition) are controlled exercises aimed at eliciting production and perception of the target sounds only. If the app truly wants to help users develop clear, confident speech, it should consider incorporating less controlled or communicative tasks.

In line with the limited types of exercises, the *American English Pronunciation Tutor* app also falls into the category of edutainment (Gros, 2007), the genre of game that provides opportunities to practice the same skill multiple times with the assumption that the skill will be acquired, provided it was repeated enough times. Current theories on game-based learning, or the use of digital games for educational purposes, state that games should "provide complex environments in which content, skills, and attitudes play an important role during the game" (Gros, 2007, p. 26). In order to do so, the app should incorporate more game-based learning theories and either add to or adapt the existing four exercise types to reduce repetitiveness and increase user interaction.

## SUMMARY

At first glance, the *American English Pronunciation Tutor* app has its merits. It focuses on the development of production and perception of the segmental and suprasegmental features of American English without advocating for accent reduction, and it provides orthographic representations of the target sounds along with the IPA symbols, which could be useful for some learners. However, the app is still lacking in the sense that it should incorporate more theories of game-based learning by reducing the repetitiveness of its exercises by adding to them or adapting them to have meaning-oriented communicative exercises.

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