TECHNOLOGY REVIEW
THE *PERFECT ACCENT* APP

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Cite as: Zawadzki, Z. (2022). Technology review: The Perfect Accent App. In J. Levis & A. Guskaroska (eds.), Proceedings of the 12th Pronunciation in Second Language Learning and Teaching Conference, held June 2021 virtually at Brock University, St. Catharines, ON. https://doi.org/10.31274/psllt.14315

INTRODUCTION

Automated speech recognition (ASR) is a feature of computer-assisted pronunciation training (CAPT) that can provide many benefits such as individualized instruction, a safe environment for pronunciation practice, and increased motivation and engagement (McCrocklin, 2019). *Perfect Accent* is a language-learning mobile application created by Virtual Immersive Educational Worlds, Inc. that is designed to improve a user's accent at the individual sound level using sentences from different contexts. Users can choose from over forty different categories, including everyday tasks, various English for Specific Purposes contexts, and TOEFL. The creators claim that using the app improves the users' pronunciation which can in turn help them get a better job, develop better social relationships, and be more clearly understood.

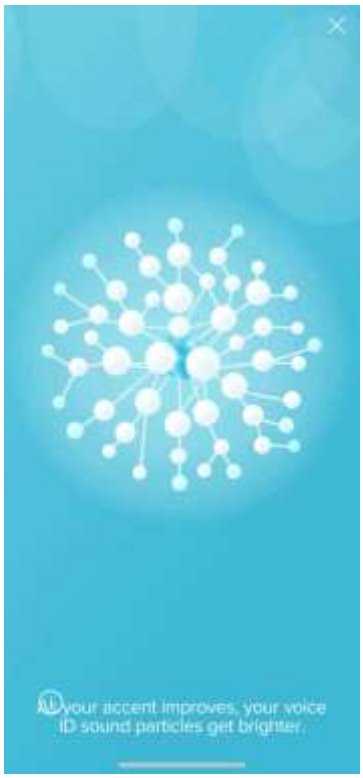
Perfect Accent can be downloaded for free from the Apple App Store and the Google Play store for any mobile device. The app offers limited content without signing up, but also offers three different plans: basic for $9.99/mo (or $99.00/yr), All Access for $17.99/mo (or $179.99/yr), and Family for $49.99/mo (or $399.99/yr). The basic plan gives you full access to the app; the All Access plan gives you the benefits of the basic subscription along with access to FluentWorlds' other app, Learn English, and Family is an all-access pass for up to 6 family members. For this review, the basic version was used on an iPhone XR.

DESCRIPTION

When a user opens the app for the first time, they must select their native language from a list. The supported language backgrounds include: English, Japanese, Spanish, German, French, Hindi, Russian, Arabic, Italian, Vietnamese, Chinese, Korean, Hebrew, Bosnian, and Indonesian. Some of the languages, such as French and Chinese, offer translations of the English sentences into the selected native language, whereas other languages, such as Bosnian and Indonesian, do not offer this feature. However, the selected language background does not appear to greatly affect user experience, so in reality, learners from any language background should be able to use the app. There are not different practice levels in the app, but considering that the target practice uses short, simple sentences, it could be suitable for any level, starting with advanced beginners. Once the user's native language is selected, the user listens to and repeats five sentences to create their first voiceprint, as seen in Figure 1.

Figure 1

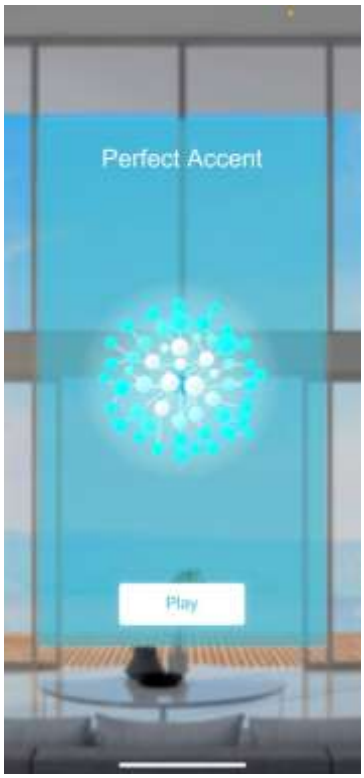
The initial voiceprint.



The design of the app's interface is relatively simple. The images in the background rotate to show different locations such as a beach or an office, which do not correspond to the practice category. When the app is opened, a page with an example voiceprint and a play button appears, as seen in Figure 2. Once “play” is clicked, it brings the user directly to practice in the category last used.

Figure 2

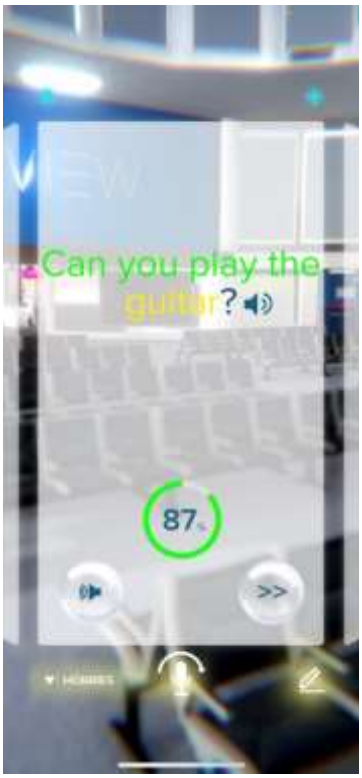
The landing page of Perfect Accent



After the initial voiceprint is created, the user can select the category they want to practice, relating to daily tasks, ESP, and TOEFL. Additionally, the user can type their own sentence. Once a category is selected on the first use or "play" is pressed in subsequent uses, the sentence is automatically played and can be listened to multiple times. However, this feature can be turned off. After listening to the sentence, the user holds the microphone button to record their pronunciation of the sentence. Once finished, a score from 1-100% appears, with the words in the sentence displaying either green, yellow, or red, based on the pronunciation accuracy of their production. Buttons to listen to the recording, to advance, and to re-record also appear, as seen in Figure 3. The user cannot skip a sentence; it must be recorded to advance. However, no specific accuracy score needs to be achieved before moving on. After continuing to the next sentence, it is not possible to go back to previous sentences.

Figure 3

Sentence-level feedback for the sentence "Can you play the guitar?"



The app boasts that it offers feedback at the level of individual sounds. The user can click on each word in the sentence and view it in the International Phonetic Alphabet (IPA). If a word was not produced correctly, the phonemes pronounced incorrectly appear in red, and the phonemes produced correctly appear in green. Figure 4 demonstrates the feedback given on the words at the individual sound level. The user can re-record as many times as they want, move freely between categories, and practice as many or as few sentences as they like in a session.

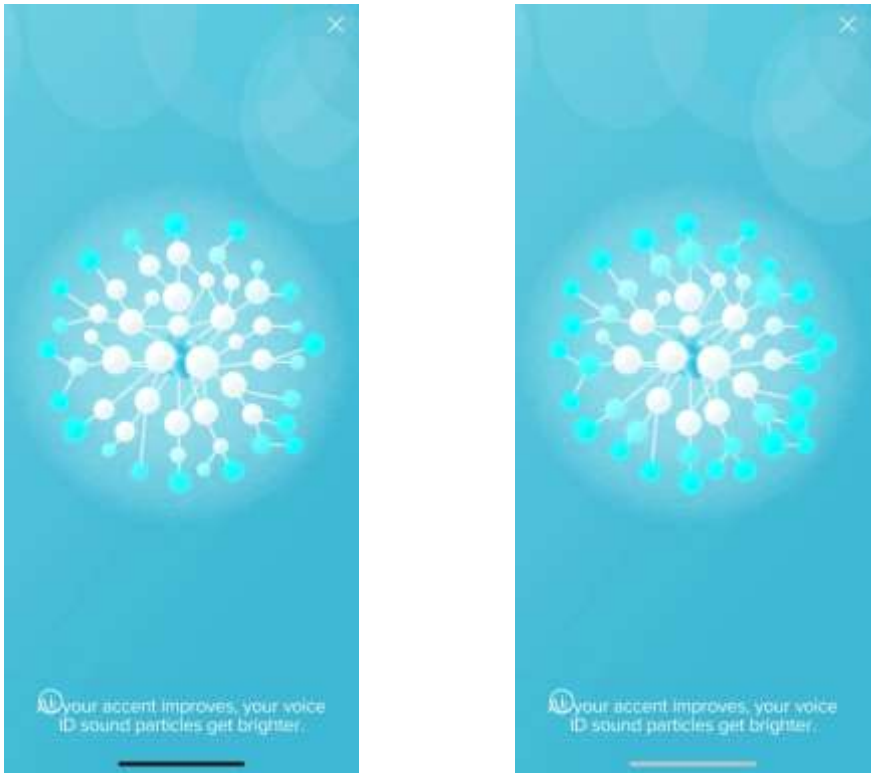
Figure 4

Word-level feedback for the word "guitar"

Progress in the users' pronunciation is demonstrated as the voiceprint becomes brighter. Figure 5 contrasts two voiceprints to demonstrate progress.

Figure 5

A comparison of two voiceprints, showing the brightness increasing with progress from left to right



EVALUATION

Perfect Accent is easy to use and navigate. However, the constant changing background could be distracting to users and the background colors make the content or buttons at the bottom, such as the microphone, difficult to see at times. The app features a large selection of practice contexts. Allowing a learner to practice in specific contexts can help the learners be more successful in their improvement (Jenkins, 2004). Allowing users to practice their own sentences is also a positive aspect of the app as it permits the user to practice any context they wish. Additionally, the self-paced nature of the app increases accessibility (Thomson, 2011). Finally, allowing the user to re-record as many times as desired, and feature of the voiceprints to view and track progress are also beneficial features of the app.

The app provides two forms of feedback to help learners improve their pronunciation skills; first, implementing green, yellow, and red to indicate production accuracy, and second, providing the correct transcriptions of the words in IPA. However, the app does not provide a guide for understanding IPA. Therefore, if the user is not familiar with IPA, this feedback will be less beneficial. Additionally, the app provides the correct transcription, but it does not indicate what the speaker actually said, which could be helpful information for the user.

The app, as claimed, focuses on accent reduction at the individual sound level. However, in pronunciation instruction, segmentals are only a part of a larger picture. The focus in pronunciation instruction has shifted from accentedness and nativeness to comprehensibility and intelligibility, identifying the importance of suprasegmentals and shifting the goal to be understood, not sound like a native speaker (Levis, 2005, 2018). By only focusing on individual sounds, this app is missing a crucial aspect of pronunciation. Though a user may have perfect segmentals, they could have suprasegmental issues in areas such as word stress or intonation that cause them not to be understood (Levis, 2018). The sentences featured include both statements and questions, allowing room for suprasegmental errors. The app also makes unfounded claims that it can help the user get a better job and improve social relationships, but suprasegmental issues could still impede job prospects and social relationships.

Authenticity is an important aspect to consider when evaluating CALL software (Chapelle, 2001). Considering that the only task featured is controlled practice listen and repeat, this app is neither communicative nor interactive. The app may provide some authentic sentences for the different situations from the categories, such as "The business is in debt" and "They have to get loans" for the finances and taxes category and "Let's get back to work" for Business English, but the lack of interaction impedes authenticity. The speakers in the app, one male and one female, sound computerized, which also sacrifices authenticity. A larger number of authentic speakers may increase the retention of the sounds learned and help the user generalize the sounds to other situations through High Variability Phonetic Training (Thomson, 2018).

One final issue to consider is the accuracy of the ASR. The reviewer found a lack of accuracy for the ASR used in the app**.** As a native speaker of English, some sentences were marked as 100% correct, whereas other sentences were marked as 80% correct, even with careful pronunciation. Then, when words were purposefully pronounced incorrectly, the app did not mark them as incorrect.

CONCLUSION

Perfect Accent is a user-friendly app that may help users improve their segmental production. It offers feedback through the use of IPA and colors and could be used by speakers of any language. It also offers many categories of sentences that can be desirable for users. However, the listen and repeat tasks lack authenticity and the app does not explain IPA for users who are not familiar with it. If a user wants to focus solely on segmentals and is not worried about suprasegmentals, despite their importance, then this app has potential with some improvements, including greater accuracy in the speech recognition software.

ABOUT THE AUTHOR

Zoë Zawadzki is a PhD student in the Applied Linguistics and Technology program at Iowa State University. Her research interests include pronunciation, specifically intelligibility and suprasegmentals, and computer-assisted language learning, especially the integration of technology into pronunciation teaching. Zoë is currently the editorial assistant for the *Journal of Second Language Pronunciation* (JSLP). She holds a B.A. in French and Linguistics and an M.A.

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