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SOFTWARE REVIEW

Saundz

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The *Saundz* curriculum-based education software program was developed by the *Saundz* Company in 2012. Users can access the *Saundz* website on their computers or download the *Saundz* app to their smartphones and tablets via Apple's iOS or the Android operating system. The cost for access to the full course on the website and through the app is $19.99 USD. *Saundz* is intended to offer computer-assisted pronunciation training (CAPT) to English-as-a-foreign-language (EFL) students. The developers of *Saundz* promise that the software will help non-native English speakers to "1) learn in a step-by-step manner each of 40 sounds of American English, 2) practice their pronunciation at any time via the internet, and 3) quickly improve their pronunciation skills and reduce their accent" (Saundz, 2016). This review will focus on the *Saundz* app. The review will begin with an overview of the main features of the app, and it will then evaluate the app using the CALL evaluation framework developed by Chapelle (2001).

OVERVIEW OF MOBILE APPLICATION

This section will discuss the four main features of the *Saundz* app: 1) virtual pronunciation instructors and teaching assistants, 2) curriculum-based lessons, 3) customized curriculum and 4) the grading and badge systems.

VIRTUAL PRONUNCIATION INSTRUCTOR AND TEACHING ASSISTANTS

One of the central features of *Saundz* is its computer-animated virtual pronunciation instructor, Simone, whom users meet when they select a lesson on the app. Simone's face, viewed head-on and in profile, demonstrates how to move the vocal organs in order to pronounce particular vowel and consonant sounds, as shown in Figure 1. Users can click on the "Play" button to watch animations and to listen to corresponding sounds as many times as they choose. In addition to visual and audio cues, a detailed written description of how to pronounce the sounds is provided (see Figure 1).

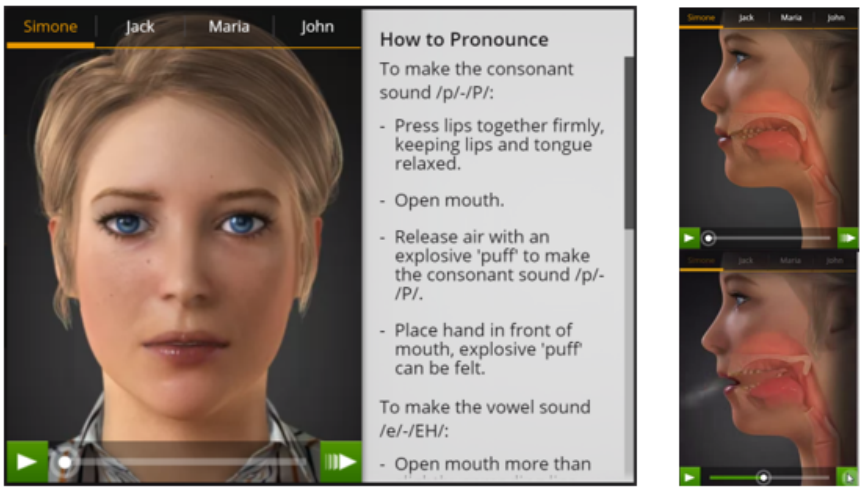

Figure 1. Simone's demonstrations for making the consonant /p/ sound

In addition to Simone's voice, users can choose to listen to the voices of three professional English teaching assistants: Jack, Maria or John. Jack is an adult male, while Maria and John are teenagers (see Figure 2). Users can choose the teaching assistants based on their age and gender.

Figure 2. The icons of the teaching assistants Jack, Maria and John

CURRICULUM-BASED LESSONS

The full course of *Saundz* includes 38 chapters with 163 lessons to teach the pronunciation of 16 vowel and 24 consonant sounds in English. In each lesson, students first learn from their virtual pronunciation instructor, Simone, how to produce a target sound (e.g. /e/). Next, they can listen to the target sounds as they appear in different words (e.g. pet, peck and pep). In total, the system includes more than 400 words to teach students how to produce various sounds. The definitions of each word, along with pictures and sample sentences, are provided in a dictionary in the left sidebar of the window (see Figure 3).

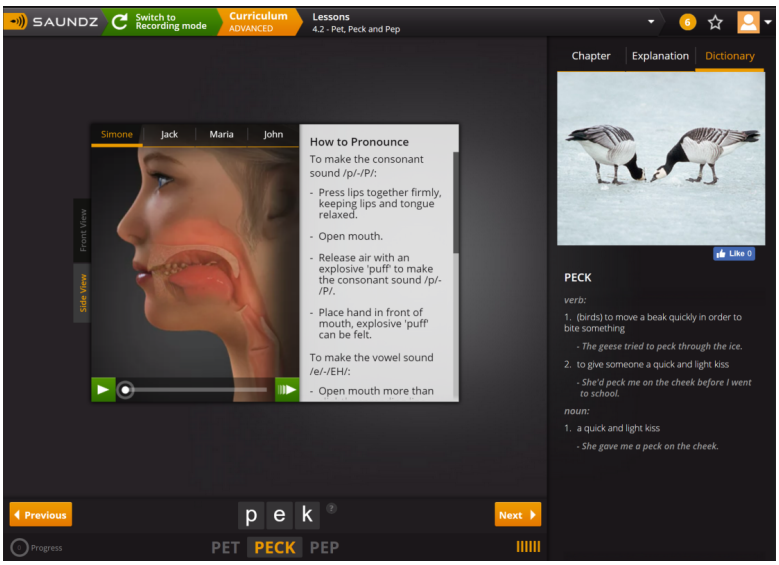

Figure 3. A screenshot of the lesson on /e/ with the words "pet," "peck," and "pep"

Minimal pair exercises are traditional exercises that are widely used in language training to encourage students to perceive discrete sounds (Munro & Derwing, 2006). After learning the phonetic knowledge of a particular sound, *Saundz* users can listen to target word pairs (e.g. pep vs pit, peck vs pack, tech vs tack) multiple times to notice the subtle differences between two words. Furthermore, they can read those word pairs aloud and compare their productions with Simone's or those of the teaching assistants in interactive recording exercises. Users record their production of a target word as many times as they wish and select the three best recordings. They then upload those three audio files to the system to compare them to the sounds produced by the virtual instructors (see Figure 4). Users are expected to improve their perceptions and productions of the target sounds with minimal pair listening and recording activities.

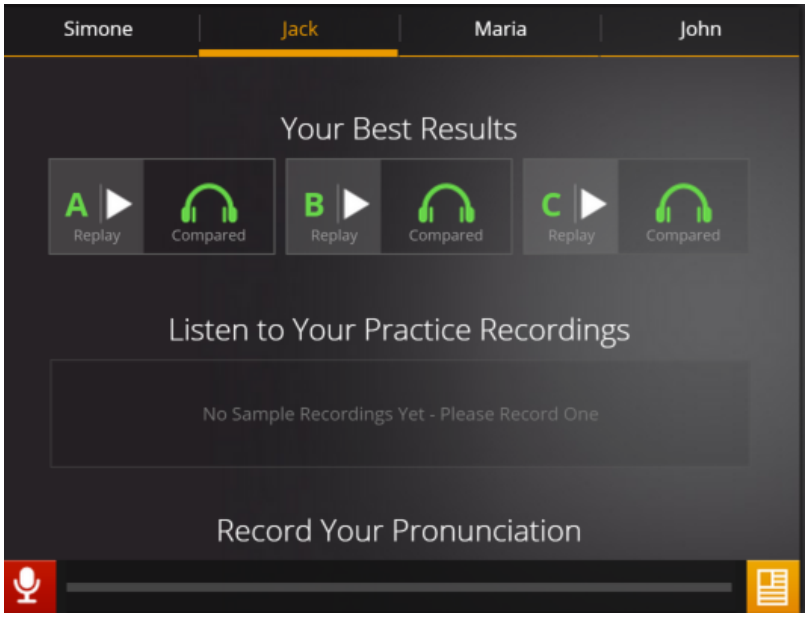

Figure 4. A screenshot of the recording mode in *Saundz*

CUSTOMIZED CURRICULUM

As mentioned above, *Saundz* has 163 lessons focusing on 16 vowel and 24 consonant sounds in English. Based on learners' first languages, the course recommends target lessons that address problematic sounds for native speakers of certain languages. For example, the course recommends 134 lessons focusing on 28 sounds to learners whose native language is Chinese. As shown in Figure 5, Chinese students are encouraged to make use of lessons about the distinctions between consonants such as /r/ and /l/, the length contrast between the vowel sounds /i/ and /ɪ/ and the pronunciation of problematic sounds like /v/. By comparison, the course suggests that Japanese speakers review 94 lessons focusing on 24 sounds. These lessons address the differences between /f/ and /v/, the pronunciation of the diphthongs /aɪ/, /eɪ / and /ɔɪ / and the pronunciation of word-final consonants like /n/.

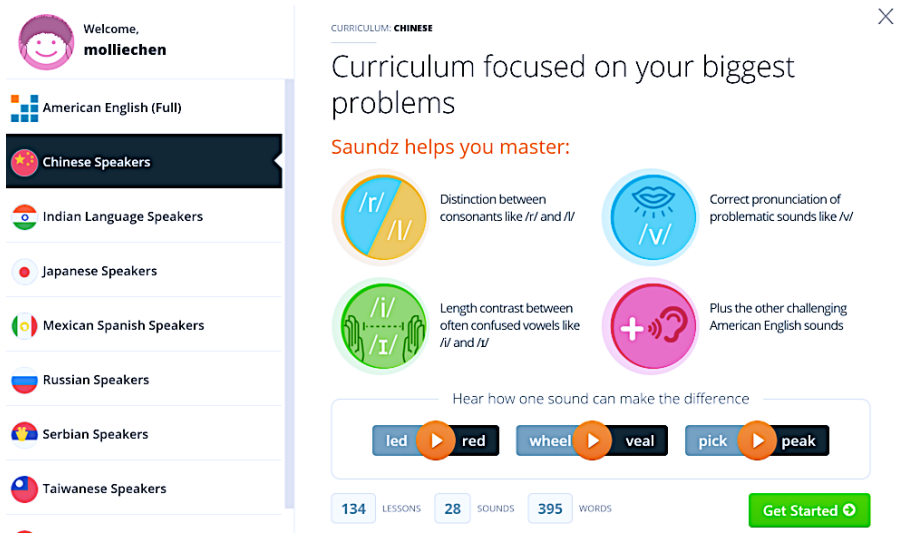

Figure 5. A screenshot of the front page of the Chinese curriculum in *Saundz*

THE GRADING AND BADGE SYSTEMS

In order to motivate students to continue interacting with the system, *Saundz* provides users with scores and digital badges as incentives. For example, after uploading recording files to *Saundz*, users receive scores for task completion, as shown in Figure 6.

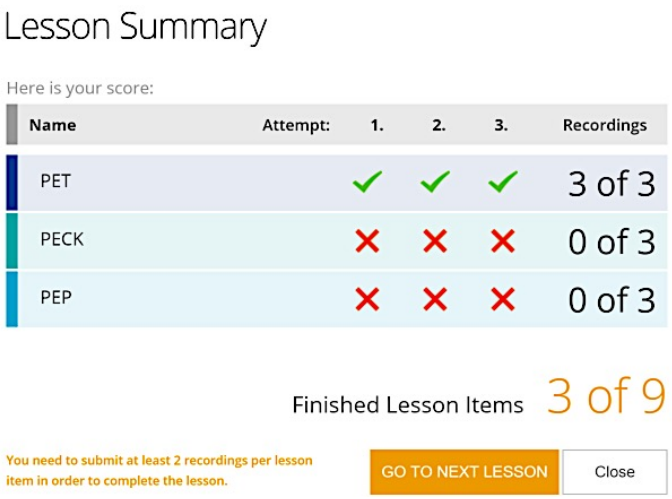

Figure 6. A screenshot of the scoring system in *Saundz*

The app also awards digital badges to students as they progress through the program. For example, when they finish a difficult lesson, such as a lesson on the vowel sound *schwa*, or achieve a goal, such as recording and uploading 50 words to *Saundz*, they can collect digital merit badges in the gallery as awards (see Figure 7).

Figure 7. A screenshot of the Merit Badges Gallery in *Saundz*

APPLICATION EVALUATION

This review implements Chapelle's framework for evaluating computer-assisted language learning (CALL) (2001). Based on this framework, I will assess the *Saundz* app from six perspectives: language learning potential, learner fit, meaning focus, authenticity, positive impact and practicality.

LANGUAGE LEARNING POTENTIAL

According to Chapelle (2001), language learning potential refers to the "degree of opportunity present for beneficial focus on form" (p.55). As Schmidt (2001) articulated, second language

acquisition "is largely driven by what learners pay attention to and notice in target language input and what they understand the significance of noticed input to be" (p.4). In order to help students focus on target vowel and consonant sounds, *Saundz* uses animated virtual instructors and written descriptions. Moreover, the system also allows students to compare their own productions to the standard pronunciations through minimal pair listening and recording exercises. The comparisons enable students to notice gaps or mismatches between their productions and the model sounds.

Even though noticing is the first step in language learning, the noticing itself cannot ensure learning (Swain, 2005). One potential problem that I found in the comparison activities is that there is no corrective feedback provided to learners. As Sheen (2011) stated, corrective feedback can notify students of errors in their output and allow them to understand how to make changes. Through repeated practice with corrective feedback or exposure to model sounds, users are more likely to become aware of their own problems in pronunciation and to improve accordingly.

Another aspect of the app that can be improved concerns its grading and incentive systems. When users record and upload their production of the target words to the system, they receive scores. These scores are given based on students' completion of tasks. In other words, users receive full scores when uploading their recordings to the program, regardless of whether they produce the sounds correctly or incorrectly. As a result, the scores are a poor indicator of students' mastery of the knowledge. If users were able to receive scores based on the quality of the sounds they produce, the interactions with the learning system would be more meaningful and motivating.

LEARNER FIT

"Learner fit" refers to how much a program or a course benefits students with various characteristics (Chapelle, 2001). The developers of *Saundz* have tried to personalize the app by addressing different language backgrounds and proficiencies. First, *Saundz* recommends different chapters to non-native English learners with different language backgrounds. Given that students with the same L1 may have similar pronunciation problems, this is an effective way to address problematic sounds within target groups of users. As an English learner whose first language is Chinese, I found some lessons, such as those on the differences between the /i/ and /ɪ/ sounds, useful. Nevertheless, I noticed that some common pronunciation issues found among Chinese students are not addressed in the course. For instance, many Chinese students from southern provinces of China have difficulty differentiating the /n/ and /l/ sounds in their L1; those two sounds are also negatively transferred to their English pronunciation. *Saundz* fails to include a lesson explaining those two consonant sounds to Chinese users. Therefore, more chapters on confusing vowel and consonant errors should be developed and integrated into the existing lessons in *Saundz*.

A central claim made by the designers of *Saundz* is that the app "allows students regardless of their language proficiency, to learn American English pronunciation quickly" (Saundz, 2016). Admittedly, the three-dimensional technology and virtual instructors are very helpful; users with different language proficiencies can use the app's three-dimensional animation and written descriptions to understand how to produce target sounds. However, it is hard to say if users with intermediate or advanced language proficiency would benefit from the app's pronunciation exercises as much as beginners. Compared to beginner-level users who need to pay greater

attention to sounds at the syllable- or word-level, users with higher language proficiency require more attention to suprasegmental features of utterances (e.g. intonation, stress, pitch, etc.) in particular contexts. In order to meet a variety of student needs, animations, exercises and tests that address pronunciation problems at the sentence and discourse levels ought to be integrated into the app.

MEANING FOCUS AND AUTHENTICITY

In Chapelle's framework (2001), "meaning focus" and "authenticity" refer to the connection between CALL activities and communication skills outside of the classroom. In terms of "meaning focus," the CALL exercises should not only direct users' attention to the pronunciation of the target sounds, but also allow them to understand the link between their productions and their intended meanings. What is more, the language use in the exercises should be authentic and represent the oral pronunciation features found in daily communication ("authenticity"). The exercises in *Saundz*, however, are neither meaning-focused nor authentic. First, the pronunciation training and practice address sounds and pronunciation problems entirely at the word level. None of the exercises are task-based or content-based. Second, the sounds produced by the virtual instructor and assistants are slower than those produced in real speech; users are not able to compare average-speed pronunciations to the ones in *Saundz*. The lack of meaning-focused exercises and authentic training materials may limit users' pragmatic knowledge development and understanding of how to apply what they learn in *Saundz* to real situations.

POSITIVE IMPACT AND PRACTICALITY

Saundz claims that "[i]n as little as 5 hours, from more than 40 available hours of instruction, ESL students using *Saundz* will improve their spoken American English with an overall reduction in accent." Developers of this software want to promote the positive impact of the app, emphasizing its practicality. However, this claim exaggerates the effects of the application. First, since accents appear not only at the word level, the improved pronunciation of discrete words as practiced through *Saundz* will not necessarily help users to achieve "an overall reduction in accent." Second, the appearance of an accent relates to various factors. Consequently, it is impossible to reduce accents within a short duration of time. The claims concerning the app's potential are therefore exaggerated.

> In addition, *Saundz* (2016) provides testimonials from users from different countries:
>
> Excellent program! I've been trying to learn to speak correct for several years and
>
> *Saundz* finally helped me. (Jun—a learner from China)
>
> After I finished all the lessons in *Saundz*, everybody around me noticed my
>
> progress. (Galina—a learner from Serbia)

Significantly, all the evaluations provided by the developer come from insider perspectives (e.g. ESL/EFL learners and instructors). Evaluations from outsiders (e.g. applied linguists, program coordinators, etc.) are needed.

CONCLUSION

Overall, *Saundz* is a beneficial tool to help users improve their pronunciation at the word level. The virtual instructors and animations are useful to students who do not have access to native English speakers, and users can practice their pronunciation via mobile devices at any time and location. The app would benefit from the addition of visual and individualized feedback as well as contextualized pronunciation activities.

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