

TECHNOLOGY REVIEW

LanguageTwo.com

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INTRODUCTION

LanguageTwo.com, a website created by Thomas David Kehoe in January 2017, is intended to train second language learners in speech perception, segmentation, pronunciation, and diglossia, but the primary target is second language learners with auditory processing disorders, those who cannot “pick up a language by ear”. The author argues that if the website can help learners with auditory processing disorders, then all second language learners will find the website helpful. Kehoe claims that the website primarily aims to improve the ability to hear a second language. The website is free and can be used on any device (e.g., computer, tablet, cell phone) with internet access and any type of software. According to the author, the website is still being developed, which needs to be taken into consideration when evaluating this website.

Currently the tool supports four languages (English, Spanish, Chinese, and Finnish), however the author does not provide reasons for selecting these four languages. The website is still under construction for Spanish, Chinese, and Finish with final improvements being made for the English part. For the purposes of this review, we focus on English (only American English is an option at this point).

To create an account, learners are encouraged to use their Google, Facebook, Twitter, or GitHub account; email is given as an option, but not recommended by the author.

DESCRIPTION

The main page of the website which provides learners with a menu consisting of different explanations, descriptions, and instruction for phonemes, consonants, vowels, and IPA (see Figure 1 below). The menu also shows IPA for the vowels (front, central, and back) and consonants (stops/plosives, affricates fricatives, sibilants approximants, and nasals). When learners click on one of the words, a written description appears as a pop up (e.g., English short I, *kit*, *lid*, *fill*, *bin*) including a description of the position of the sound in the mouth near-close, near-front, unrounded vowel are provided for learners. Learners can click on the headphones sign and hear the phoneme produced by a native American speaker.

Your native language > English Spanish

Listen to the audio recording, click the phoneme buttons, then say the word. We also have detailed [instructions](#) if you need more help.

English Spanish Chinese Finnish < The language you want to learn

Vocabulary Video: Walker Climbs a Tree (1 minute) Music Video: Passionate Kisses (3 minutes)

Vocabulary Word Search:

English, long e: see, bead, these: ...
Vowels: Front

Central

Back

i (green tea) ɪ (silver pin) Hint Word u (wooden hook) u (blue moon)

ɛ (red dress) eɪ (gray day) ə (cup mustard) ə (purple shirt) ou (rose coat) ɔ (auburn dog)

aɪ (white tie) æ (black cat) ɑ (olive sock) au (brown cow) ɔɪ (turquoise toy)

IPA:

Consonants: Stops/Plosives, Affricates Fricatives, Sibilants Approximants Nasals

voiceless		voiced		voiceless		voiced					
p (pen)		b (bad)		f (fall)		v (voice)		w (wet)		m (man)	
t (tea)		d (did)		e θ (thin)		ð eth (father)		l (leg)		n (no)	
tʃ (church)		dʒ (jam, badge)		s (so)		z (zoo)		r (trap)		ŋ ng (sing)	
k (cat)		g (got)		ʃ sh (she, shy)		ʒ zh (vision)		j (yes, yard)			
				h (how, hat)		x (loch)					
		<input type="button" value="Clear word"/>				<input type="button" value="Go to next word"/>		<input type="button" value="Delete last word"/>		<input type="button" value="Reset word list"/>	

[Introduction](#) [Instructions](#) [Language Notes](#) [International Phonetic Alphabet](#) [About L2](#) [Contact Us](#) [Report Bugs](#) [Tech Notes](#)

Figure 1. Main page of the website.

In addition to this main page, the website includes three sections: Vocabulary, Video, and Music Video (see the top of Figure 1). A brief description of the three main sections along with their screenshots are provided below.

Vocabulary

After clicking on “Vocabulary”, users are provided with a variety of options. One such option is a search bar which allows users to search for any word being linked to the Oxford English Dictionary and pulls up the information on the LanguageTwo website (see Figure 2, section 1 below). The author chose to use this dictionary in order to include the word, IPA transcription of the pronunciation, audio recordings of exemplary speakers saying the word (they used synthesized speech) and definitions, translations, speech recognition (to test the learners’ pronunciation of words) (T. Kehoe, personal communication, November 27, 2018).

Furthermore, learners can listen to the pronunciation of individual vowels and consonants, read a brief description and hear/see examples of each sound (See Figure 2, section 2). Then, learners can click on the provided sounds and try to click on the phoneme that they heard (Figure 2, section 3). Finally, there is also a hint button that lets learners find the correct vowel or consonant (Figure 2, section 4).

The screenshot displays the LanguageTwo.com Vocabulary section. At the top, users can select their target language (English, Spanish, Chinese, Finnish) and the language they want to learn. The interface is divided into several functional areas:

- Video Section:** Offers a 1-minute video "Walker Climbs a Tree" and a 3-minute music video "Passionate Kisses".
- Audio Controls:** Features two audio players with play/pause buttons and progress indicators, labeled with a red box and the number 3.
- Word Search:** Includes a search bar, a "Submit" button, and a "Clear Search" option. A red box and the number 1 highlight the search bar.
- Vowel Charts:**
 - Color Vowel Chart:** A chart titled "What is the Color Vowel Chart?" showing various vowels with corresponding color swatches and audio icons. A red box and the number 4 highlight the "Hint" and "Word" input fields.
 - IPA Chart:** A chart titled "What is the IPA?" showing IPA symbols with color swatches and audio icons. A red box and the number 2 highlight the "w-moving" section.
- Consonant Chart:** A chart showing consonants categorized into voiceless and voiced pairs, and fricatives and sibilants. It includes a "Reset word list" button.
- Navigation:** Includes buttons for "Reload word", "Clear word", "Go to next word", and "Delete last word".
- Footer:** Contains links for "Instructions", "About L2", and "Contact Us".

Figure 2. Vocabulary section

Video

In addition to the vocabulary component of the website, LanguageTwo.com also provides short one-minute videos which are divided into smaller parts containing short phrases. The smaller parts are automatically segmented and consist of two-three second videos. The learner can select one short part in the top right corner of the screen and watch them as separate videos. Below the video, the learners can listen to each word that is used in the video, pronounced in isolation, at normal or slower pace (see Figure 3). The website claims that learners can practice their pronunciation of the phoneme they heard and receive immediate feedback, but the immediate feedback feature could not be found on the website at the time of publication (May, 2019). The IPA chart always remains below the exercises so that students can refer to it and listen to individual sounds at any time. Also, detailed instructions are provided in the menu in the top right of the screen if more help is needed. This interface can be seen below in Figure 3.

Listen to the audio recording, click the phoneme buttons, then say the word. We also have detailed [instructions](#) if you need more help.

English Spanish Chinese Finnish < The language you want to learn

Vocabulary Video: Walker Climbs a Tree (1 minute) Music Video: Passionate Kisses (3 minutes)

Movie: Clip: 1 Change to clip: 10 Click to change

The screenshot shows the LanguageTwo.com interface. At the top, there are language selection buttons for English, Spanish, Chinese, and Finnish. Below this, there are three main sections: 'Vocabulary', 'Video: Walker Climbs a Tree (1 minute)', and 'Music Video: Passionate Kisses (3 minutes)'. The 'Music Video' section is highlighted with a red box, showing a dropdown menu set to '10' and a 'Click to change' button. A red arrow points up to this section. Below the video player, there is a control bar with a play button, a progress bar, and a volume icon. A red arrow points to the play button. Below the video player, there is a vowel chart with three columns: 'Vowels: Front', 'Central', and 'Back'. Each column contains several vowel buttons with corresponding phoneme examples and a speaker icon. The 'Central' column has a 'Hint' and 'Hide' button. The 'Vowels: Front' column includes 'i (green tea)', 'ɛ (red dress)', and 'aɪ (white tie)'. The 'Central' column includes 'ɪ (silver pin)', 'er (gray day)', 'ə (cup mustard)', 'ɜ (purple shirt)', and 'ɑ (olive sock)'. The 'Back' column includes 'u (wooden hook)', 'u (blue moon)', 'ou (rose coat)', 'ɔ (auburn dog)', 'au (brown cow)', and 'ɔɪ (turquoise toy)'.

American English

Vowels: Front Central Back

i (green tea) ɪ (silver pin) Hint Hide u (wooden hook) u (blue moon)

ɛ (red dress) er (gray day) ə (cup mustard) ɜ (purple shirt) ou (rose coat) ɔ (auburn dog)

aɪ (white tie) æ (black cat) ɑ (olive sock) au (brown cow) ɔɪ (turquoise toy)

Figure 3. Video section

Music Video

Lastly, learners can listen to and watch a short music video which is broken into 20 shorter chunks which are two - three seconds long each (see Figure 4 below), following the same procedure as in the previous section described above. The website breaks the videos down into phrases, words, and then phonemes. After that, the website suggest that learners should be able to build them back into words, phrases, and stories.

Listen to the audio recording, click the phoneme buttons, then say the word. We also have detailed [instructions](#) if you need more help.

The screenshot shows the LanguageTwo.com interface for a music video section. At the top, there are language selection options: English (USA), Spanish (Spain), Chinese (China), and Finnish (Finland). Below this, there are three video options: 'Vocabulary', 'Video: Walker Climbs a Tree (1 minute)', and 'Music Video: Passionate Kisses (3 minutes)'. The 'Music Video' option is selected, and a dropdown menu shows '4' as the current clip, with a 'Click to change' button next to it. A red box highlights this dropdown and button, with a red arrow pointing to it from below. Below the video options is a video player showing a woman's face. A red box highlights the video player's progress bar and controls, with a red arrow pointing to it from below. Below the video player is a vowel chart with three columns: 'Vowels: Front', 'Central', and 'Back'. Each column contains several phoneme buttons with their corresponding IPA symbols and example words. For example, in the 'Front' column, there are buttons for 'i (green tea)', 'e (red dress)', and 'æ (black cat)'. In the 'Central' column, there are buttons for 'a (cup mustard)', 'ɜ (purple shirt)', and 'ɑ (olive sock)'. In the 'Back' column, there are buttons for 'u (wooden hook)', 'oo (rose coat)', and 'au (brown cow)'. A red arrow points to the 'American English' label above the vowel chart.

Figure 4. Music video section

After listening to each short phrase within the music video, learners are given the option to take a pronunciation test (see Figure 5). The purpose of this option is to allow learners to test their pronunciation production and receive feedback by Automated Speech Recognition (ASR) system, most likely, to test whether improvement of their perception skills, resulted in improvement of their production skills. It is difficult to find instructions and explanations for this feature on the website, as well as the feature itself. Considering that the website is still developing, this feature may be changed in the future.

The screenshot shows the LanguageTwo.com pronunciation test interface. At the top, there is an 'IPA:' label. Below it is a 'Start pronunciation test' button, which is highlighted with a red box and a red arrow points to it from the right. Below the button are several sections for selecting test parameters. On the right side, there are buttons for 'Broadband' and 'Narrowband', 'US English' and 'UK English', 'Approximants', and 'Nasals'. Below these are sections for 'Consonants: Stops/Plosives, Affricates' and 'Fricatives, Sibilants'. Each of these sections has two sub-sections: 'voiceless' and 'voiced'. Under 'Consonants - voiceless', there are buttons for 'p (pen)', 't (tea)', and a blank button. Under 'Consonants - voiced', there are buttons for 'b (bad)', 'd (did)', and a blank button. Under 'Fricatives - voiceless', there are buttons for 'f (fall)', 'θ th (thin)', and 's (so)'. Under 'Fricatives - voiced', there are buttons for 'v (voice)', 'ð eth (father)', and 'z (zoo)'. Below these are buttons for 'w (wet)', 'l (leg)', and 'm (man)'. There are also buttons for 'n (no)' and a blank button.

Figure 5. Pronunciation test

EVALUATION

As seen through the various screenshots throughout this review, LanguageTwo.com is visually stimulating and draws attention to the IPA chart. The colorful appearance and inclusion of videos may provide an engaging learning environment for the users. In terms of usability, at first glance, the website seems user-friendly and it provides detailed instructions for users who need guidance using the website. The IPA chart is fairly easy to use; nonetheless, users may need to spend some time learning how to use the videos, since that part is a bit confusing. The division of the videos into smaller two-three second chunks and the way it can help the learners may seem difficult to grasp at the beginning, so it would be helpful if this is elaborated upon in the instructions. Occasionally, certain technical problems arose, such as not being able to hear the sound when clicking on a few phonemes. Hopefully these issues will be resolved as soon as the website is fully completed.

One of the important aspects of pronunciation learning is the promotion of learner autonomy (McCrocklin, 2016) and this website encourages autonomous learning as the learners can practice any time and place, at their convenience. The practical aspect of the website, being free and accessible on any device, can also provide support for autonomous, self-paced learning.

Despite this potential for learner autonomy, the website only emphasizes segmental acquisition and there is no information about suprasegmentals. Focusing on segmentals can be useful and effective for beginners who do not have a lot of experience with differences in pronunciation between their first language (L1) and English (Eskenazi, 1999).

However, unlike other software that focuses mostly on production, this website would mostly be useful for speech perception improvement because its main aim is to enhance learners' perception. Badin, Bailly, and Boë (1998) state that second language learners (L2) can be considered phonologically deaf as they may not be able to discriminate between sounds that do not belong to their phonological inventory. Hence, if learners cannot perceive the sounds, they cannot produce them consistently either; thus, if the primary aim of the website is improving perception, then it may serve as a stepping stone towards production improvement.

LanguageTwo.com claims that it can be used to train speech perception and pronunciation production. While Thomson (2011) argues that the amount and quality of L2 input influences L2 production, but we are doubtful that this website can also be useful for production improvement. Even though a feature for pronunciation practice is provided, that feature was not functional when the website was tested. Levis (2007) states that feedback is lacking in Computer-Assisted Pronunciation Training (CAPT) systems as they are usually unable to automatically and accurately diagnose pronunciation. As noted earlier, the website is still under development, and when this feature becomes functional, we hope it will provide accurate, automated feedback to learners. With this feature available, the website would be a suitable resource that might also become useful for production improvement.

For future improvements, we suggest the inclusion of High-Variability Phonetic Training (HVPT) which relies on input produced by multiple contexts and by multiple speakers (Qian, Chukharev-Hudilainen & Levis, 2018) as well as a larger diversity of videos on different topics. As stated by

the author, future versions will include data collection so that researchers can study how speech perception affects pronunciation with large data sets of thousands of learners and words.

CONCLUSION

All said, with a few suggested improvements, LanguageTwo.com has the potential to be a successful tool that can be used to aid English as a Second Language (ESL) and English as a Foreign Language (EFL) classrooms around the world. L2 perceptual training is important and necessary, not only because L2 perception is challenging for adult learners, but because it also facilitates oral production (Qian et al., 2018). This website can be used for beginners to introduce them to the sounds in English, but also with more advanced learners who struggle with pronunciation. Finally, the use of this website could facilitate autonomous learning in an engaging way for learners.

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