SpeechPrompts™

by

HandHoldAdaptive®

Quick-Start User Guide

Version 1.3

SpeechPrompts™ is a speech therapy app designed by HandHold Adaptive (makers of iPrompts), in collaboration with the Yale Child Study Center.

It is designed for use with those with autism spectrum disorders (ASDs), particularly those exhibiting abnormal prosody. **Prosody** refers to the **musical aspects of speech, including rate, rhythm, volume, phrasing and intonation.**
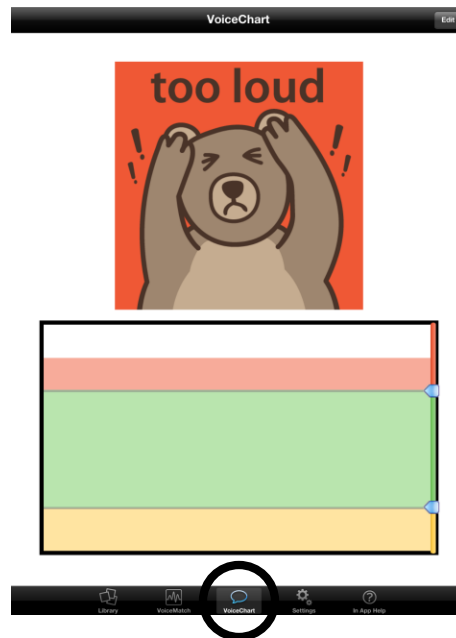
SpeechPrompts runs on Apple handheld devices, including the iPad, iPod Touch and iPhone. To open the app, just tap the SpeechPrompts icon.
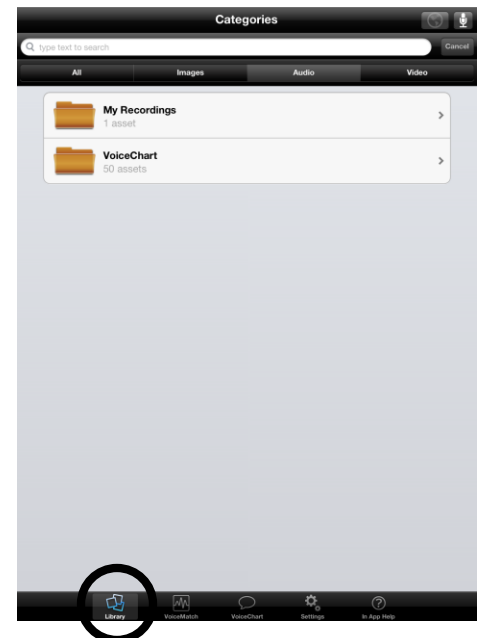
Once inside the app, you'll find that it has **three main features:**
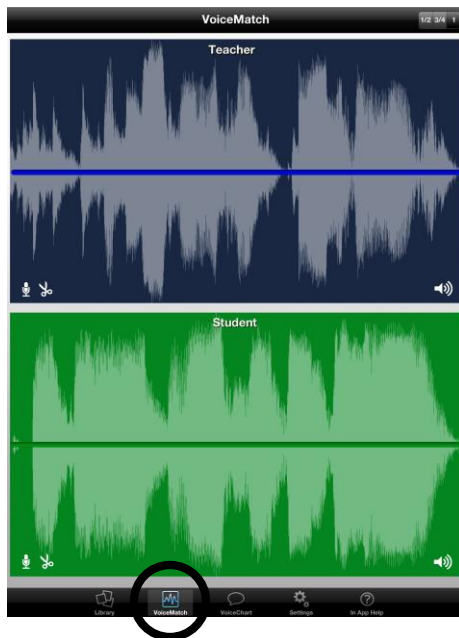
VoiceMatch   **VoiceChart**   **Library**

These features can be accessed by pressing the appropriate **tab** at the bottom of the screen. An overview of each is provided on the subsequent page.

VoiceMatch is a feature within the SpeechPrompts app. It provides a focused exercise for those with prosodic deficits, addressing **stress, rate and rhythm of speech**. When using VoiceMatch, a sample of the student's speech is compared visually (via waveform representation) and aurally (via audio playback) to a target or model phrase.

1. Begin by setting up the "Teacher" waveform. This can be a phrase selected from our Library (which contains 50 sample phrases), or a new phrase you record.

2. Then, record the Student attempting to "match" the Teacher waveform by repeating it aloud.

3. Any visual differences between the two audio recordings can then be highlighted (e.g., point to the differences on the screen and discuss). As part of the exercise, **you may guide the student through attempts to more closely match the waveform (i.e., repeat steps 2 and 3 iteratively, if necessary)**.

Teacher Audio: Choose from our Library or record your own.

Scissors: Trim the beginning or end of an audio clip (e.g., may help to "line up" the beginning each clip).

Student Audio: Record the student's attempt to repeat the target phrase.

The student and teacher should be the **same distance from the microphone** when recording samples for VoiceMatch.

Play Audio: Tap to listen to the Teacher or Student waveform.

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VoiceChart is another feature within the SpeechPrompts app. It is designed to teach those with prosodic deficits about the **loudness** of their speech, by providing **real-time, visual feedback on the student's volume level.**

1. **Begin by tapping "Edit" and setting the Room Noise level** (Sensitivity control) as shown below. If your room is quiet, drag the control to the left; for louder rooms, drag the control toward the right. You can readjust as necessary such that any "background noise" is filtered out.

2. **Set the "boundary sliders" for each of the three volume zones: Too Quiet, Just Right and Too Loud.** You can test these with your own voice before engaging the student.

3. Then, have the student speak at the **same distance from the microphone**. The meter height, graphics and colors will change depending on the student's volume level. You may then engage the student in a discussion about loudness (e.g., "You know the teacher doesn't like it when you talk too loud; it hurts everyone's ears! Let's practice talking, and our bear friend will tell us whether we are too loud, too soft or just right.").

Adjust Sensitivity (Room Noise)

Change Graphics: We provide a few samples, or you can use the camera to create your own set.

tip

Different rooms and spaces have different levels of noise. **Set VoiceChart to compensate for the appropriate room loudness by tapping "Edit" and adjusting the Sensitivity control.**

Sliders: Drag to set the boundaries between the Too Quiet, Just Right and Too Loud zones.

Too Loud   **Just Right**   **Too Quiet**

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The **Library** is where the audio clips used in VoiceMatch are stored.

We have preloaded the Library with **50 sample phrases** (e.g., "It's my turn now" and "Do you have that video game?"). These can be used as the "Teacher" waveforms for VoiceMatch, as described. You may also **record your own waveforms** and add them to the Library. For example, It may also be beneficial to re-record variations of these phrases which emphasize different words (e.g., to show how emphasizing "Do *you* have that video game?" versus "Do you have *that* video game?" changes the meaning of the phrase).

To add a new recording to the Library, simply tap the Microphone icon in the upper-right corner. To **categorize, re-label, or re-record a phrase** find the recording you'd like to edit, and then tap it. You can Search or Browse the Library to find existing clips.

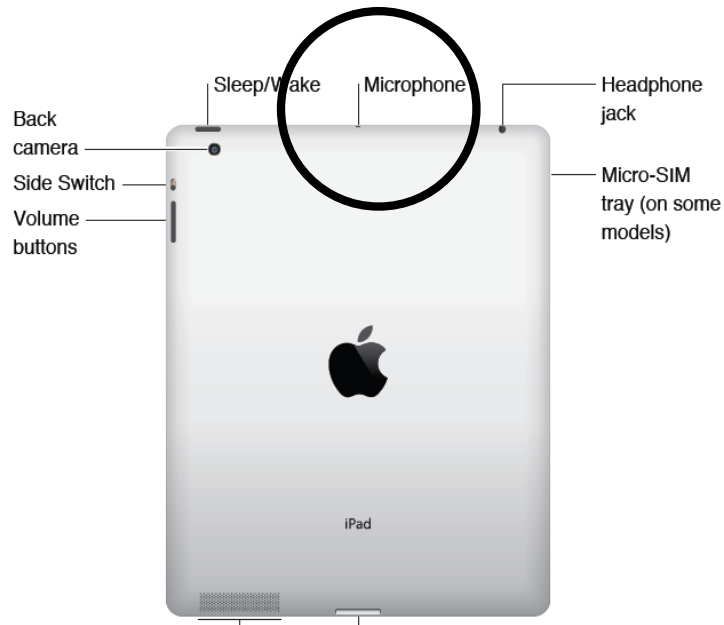**Search and Browse:** Type text into the Search bar to search for a clip, or scroll down to browse.

Try recording variations of the sample clips in the Library, to show how emphasizing different words within the same phrase can change the meaning of the phrase.
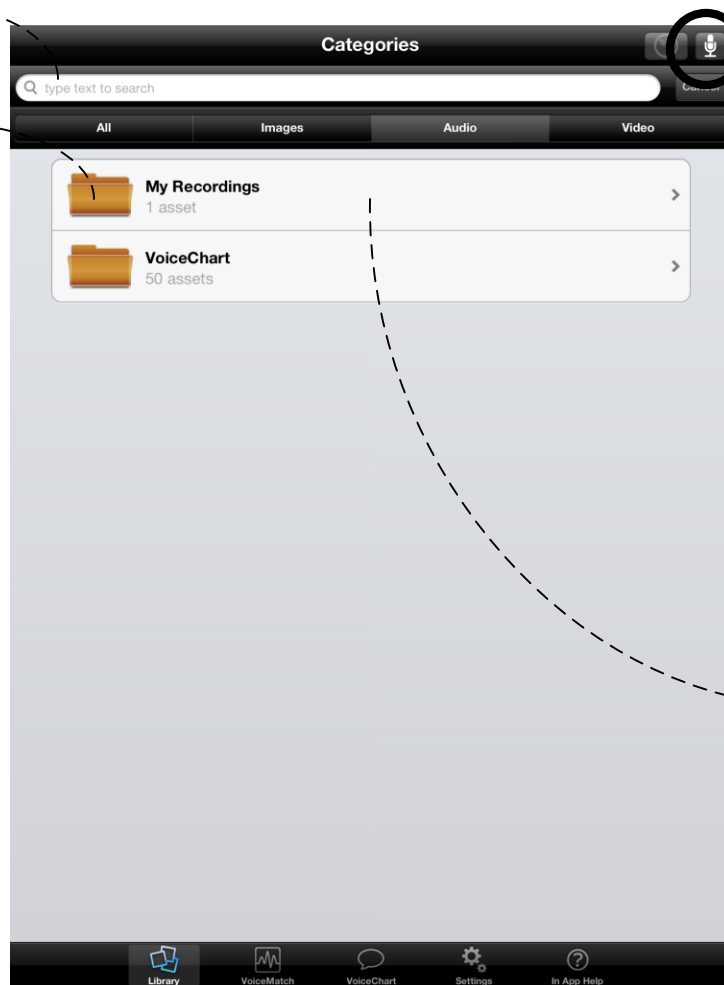
Add a New Phrase: Tap the mic icon to record a new phrase. This will add the phrase to the Library permanently (can be re-used in VoiceMatch).

Edit a Phrase: Select a category and then select a phrase to edit an existing recording (e.g., re-record the phrase, re-label the file, add category tags, etc.)

Categories

type text to search

All   Images   Audio   Video

My Recordings
1 asset

VoiceChart
50 assets

Library   VoiceMatch   VoiceChart   Settings   In App Help

- The iPad's built-in microphone is located at the top of the device, as shown above.

- The Teacher and Student should always be positioned the same distance from the microphone, whether the built-in iPad microphone or an external microphone.

- If the Student is having difficulty remaining an appropriate distance, try cutting a piece of string and using it as a guide for length.

- As an advanced exercise, use VoiceMatch to show how the same phrase can have different meanings when different words are emphasized.

- In VoiceChart, use the Sensitivity control to filter out the natural "noise floor" in a given room or environment (i.e., consistent background noise may cause the volume meter to register at a certain height without the Student's speech).

- Refer to the Guide on the next page when setting up equipment and features for each of your students.

- Email questions to robtedesco@handholdadaptive.com or elizabeth.schoen@yale.edu.

- Use the provided case as a desktop stand for the iPad, as shown below:

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SETTING: **CLASSROOM** (Primary feature: VoiceChart)	SETTING: **PRIVATE ROOM** (Primary feature: VoiceMatch)

AUDIO: BUILT-IN IPAD

1 COHORT 1

Student ID: _____

3 COHORT 3

Student ID: _____

AUDIO: EXTERNAL MIC/SPEAKERS

2 COHORT 2

Student ID: _____

4 COHORT 4

Student ID: _____