How to Use the VBReader Application on your Phone

About VBReader

VBReader allows the user to practice reading Braille letters using vibration to represent raised dots. It is an application suitable for blind, low-vision and sighted users who wish to learn Braille letters.

The touchscreen is divided evenly into six regions, each of which contains one of the six dots found in the standard Braille cell. The dots are numbered with dots 1 through 3 down the left side of the screen and dots 4 through 6 down the right side. When a region is touched, its number is spoken.

Braille letters are randomly displayed, one at a time, on the screen using both visual and tactile cues to indicate the presence of the raised dots that compose the Braille symbol for the letter. Visually, the dots that would be raised in a paper-based Braille symbol are shown as large, solid white dots and dots that are not raised are shown as unfilled circular outlines. Tactilely, a dot that is raised (filled) will vibrate when touched. (More accurately, touching the region containing a dot triggers the haptic device so that the entire phone vibrates.) Empty (non-raised) dots do not vibrate. To hear the name of the letter, the user swipes right with two fingers or if available, presses down on the trackball or center directional key. The letter will continue to be displayed on the screen so that if the user didn't know the letter, (s)he can become more familiar with it now that (s)he knows what it is. To move to the next letter, the user performs another two-finger swipe right or presses down on the trackball or center directional key (if available).

To help distinguish one row of dots from another, on the android version the vibration frequency between rows of dots is varied -- meaning the feel of the vibration in each row differs from those of the other two rows. To maximize the benefit of these differences, players should begin their touch in the upper left-hand corner of the screen and drag down the column before moving to the second column and repeating the downward dragging motion.

Running the Program

1) Start the application by selecting the VBReader application from your phone's application menu.
2) Hold the phone vertically (in Portrait orientation) with the buttons at the bottom.
3) After the welcome greeting, the application will pseudo-randomly choose and display a letter. During a session, the random choice of the next letter is restricted to only those letters in the alphabet that have not been displayed yet. Once all 26 letters have been displayed, the selection restarts with a full alphabet, restricting each subsequent selection to only the letters not yet displayed since the most recent restart.
4) Use your finger to navigate to each of the six dots, noting by the presence (or absence) of vibration whether or not a dot is raised. Dot numbers are spoken when touched to help

you navigate to each dot. Try to identify which Braille letter is being displayed based on where the vibrating dots are located within the Braille cell.

5) When you think you know the letter (or if you're stumped), swipe right with two fingers (or if available, press down on the trackball or center of the directional keypad) to display a touch keypad

6) When the touch keypad is displayed, you can drag your finger around the keyboard, and the application will tell you which letter you are on. Letters A through M are on the left side, and letters N to Z are on the right.

7) To enter a letter on the touch keypad, find the letter with your finger and then double tap.

8) You will be told whether or not your answer is correct and you can feel the letter on screen a final time before moving to the next letter.

9) Do another two-finger right swipe or press down on the trackball/center directional key to move to a new letter. When the new letter is displayed, a "Ready" cue is spoken.

10) To hear spoken instructions for the application, swipe down with two fingers.

11) To interrupt and stop instructions, single tap anywhere on the screen.

12) To exit the application, press the Back button, and you will be told how many letters you read correctly.