



Q-interactive®

Q-interactive® & Bluetooth® Technology

Technical Whitepaper

February 2013



Pearson

Introduction.

In today's wireless technology world, "Wi-Fi, GPS, and Bluetooth®" are part of our everyday lives. They make our lives easier. For Q-interactive, Bluetooth technology is used during the administration session, enabling the digital tablets such as iPads to "talk" with each other without having to be tethered by a cable. This allows the assessment area to be free of cluttered cables. But what is Bluetooth?

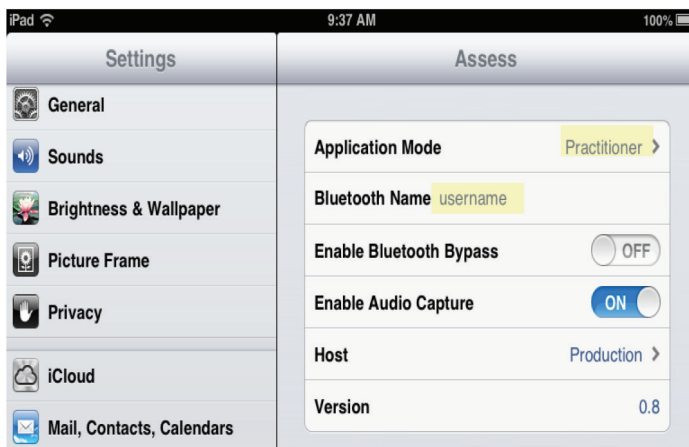
Defining Bluetooth.

We know Bluetooth is a wireless technology, which allows us to connect such things as speakers, keyboards, headsets to other devices without the use of cables. It operates on short-range radio waves, which transmit voice, video, images, and other data between devices that are Bluetooth enabled.

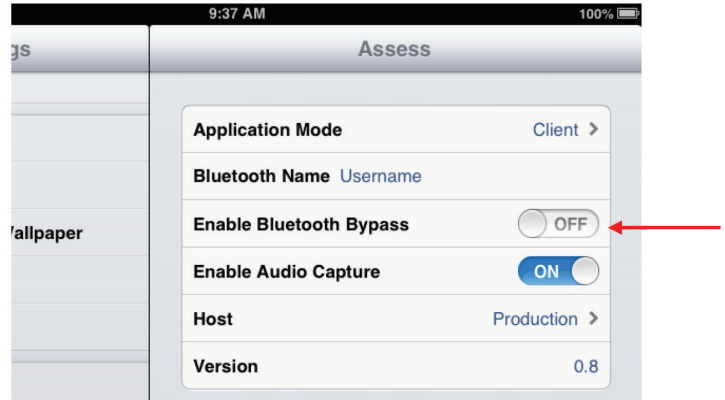
How Does Bluetooth Work?



In the instance of Q-interactive, the iPads each have a small computer chip embedded in them, which contain the Bluetooth radio. When you enable Bluetooth, you activate this computer chip. While the Bluetooth radio wave range is limited to no more than 30 feet, there may be other devices within the same vicinity that have Bluetooth. Therefore, you want to ensure that the appropriate devices are "paired" (talking exclusively to each other). This is accomplished by: 1) Turning on the Bluetooth within the Settings of the iPad. 2) Changing the Bluetooth Name from "Change Me" to a unique name (recommend Q-interactive User Name) under the Q-interactive Assess setting on the iPad. This name is case sensitive and should be typed in on both iPads, so that they will be "paired".

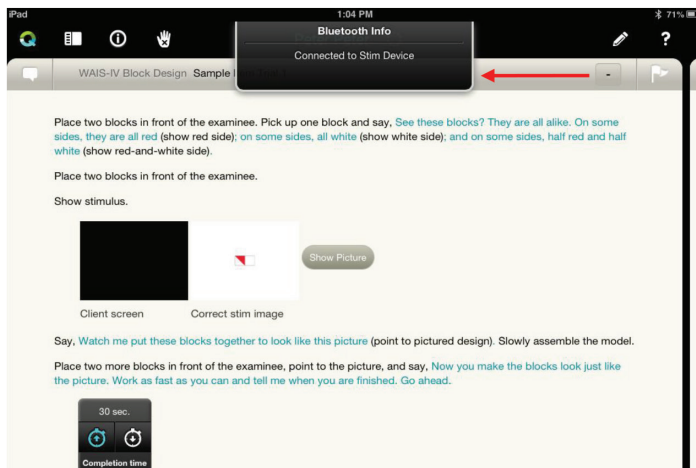


We use Bluetooth to send test item stimuli (or image files) from the examiner's screen to the client's screen, and to receive a client's 'selection' when they choose an answer on the screen. Bluetooth does not need to be connected to the Internet to work. It is built into the devices. To enable Bluetooth, "Enable Bluetooth Bypass" should be turned off on both iPads.



Learning Disability

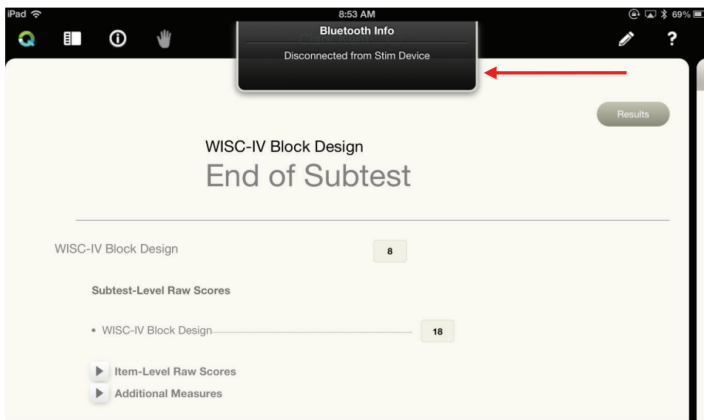
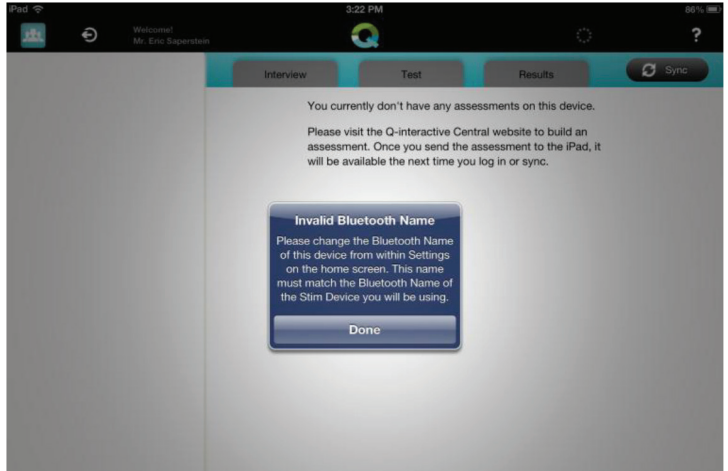
With the iPads paired, it is recommended that you first log into Q-interactive Assess on the Client's iPad. The words, "Waiting to connect to iPad" will display on the Client's iPad. If you do not see this message, review the tips under Troubleshooting Bluetooth Connection.



Next, log into Q-interactive Assess on the Clinician's iPad. The iPads will automatically pair, and a message will drop down from the top of the screen that notifies you that the iPads are connected. The Bluetooth icon, located above the "Question Mark" icon, will blink gray and change to white when there is Bluetooth connectivity. was neutral or variable.

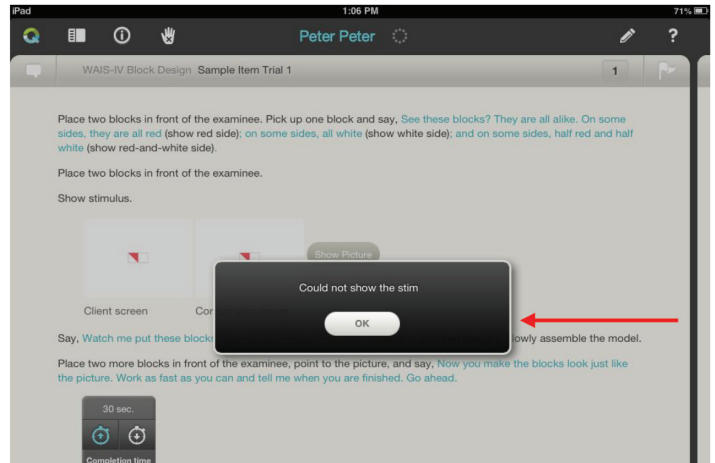
Troubleshooting Bluetooth Connection.

As with any technology, you may need to occasionally ensure it is properly connected. If when you log into Q-interactive Assess and the “Invalid Bluetooth Name Alert Message” displays, you need to change the Bluetooth Name from “Change me” to a unique name. as shown on page 2.



If you lose your Bluetooth connection during the administration of a subtest, an alert message will drop down from the top of the clinician’s iPad screen, indicating that it is disconnected. The Bluetooth icon will become grey, indicating connectivity has been lost.

If you attempt to show a picture after Bluetooth has become disconnected, you will receive the alert, "Could not show the stim", when you tap on "Show Picture".



Tips for Resetting Bluetooth Connection

Situation: You cannot get your Bluetooth to connect at the start of a session

Step 1: Go to Settings on both iPads and make sure Bluetooth is on

Step 2: Make sure the Bluetooth Name in the Q-interactive Assess setting on each iPad is IDENTICAL (names are case sensitive)

Step 3: Make sure Bluetooth Bypass in the Q-interactive Assess setting is OFF on each iPad

Step 4: Reenter Q-interactive Assess

Step 5: If the iPads still do not pair, close down all iPad applications, including Q-interactive Assess and restart both iPads.

- Tap on the Home Button of the iPad.
- Once on the home screen, double tap the home button until a panel appears at the bottom of the iPad.
- Touch the screen for a few seconds and the icons will start to jiggle, and a 'minus' sign will appear in the upper left corner.
- Touch the minus sign on the Q-interactive application to stop the application.
- Restart Q-interactive Assess and resign in.

Step 6: If they still do not pair, restart both iPads.

Situation: You are testing and lose your Bluetooth connection

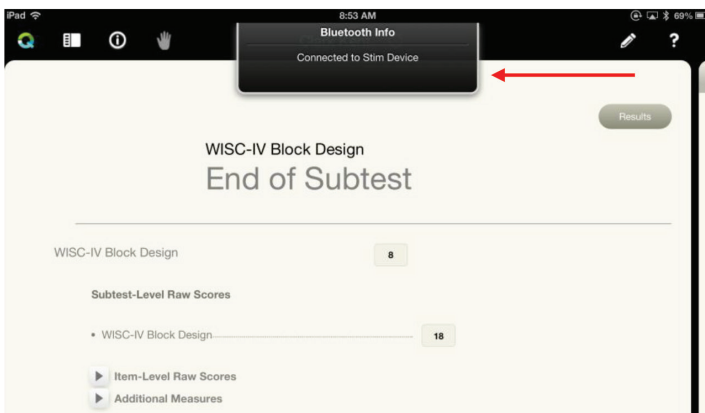
Step 1: Select the “Q”, at the top left corner within the subtest to go to the Q-interactive Asses home screen. Hit resume to reenter the testing session.

Step 2: If the iPads still do not pair, close down all iPad applications, including Q-interactive Assess and restart both iPads.

- Tap on the Home Button of the iPad.
- Once on the home screen, double tap the home button until a panel appears at the bottom of the iPad.
- Touch the screen for a few seconds and the icons will start to jiggle, and a ‘minus’ sign will appear in the upper left corner.
- Touch the minus sign on the Q-interactive application to stop the application.
- Restart Q-interactive Assess and resign in.

Step 3: If they still do not pair, restart your iPads

Once Bluetooth comes back up, the Clinician’s device will display the Alert, “Connected to Stim Device.”



Housekeeping Tips.

- Prior to each assessment session, confirm that both iPads are “paired” by ensuring the Bluetooth names are the same on both iPads.
- Not all subtests require Bluetooth connectivity as both iPads are not required for all subtests.
- Monitor your battery power level as Bluetooth will drain your battery faster. Charge the iPads after each assessment session.

Did You Know?

‘Bluetooth’ was the code name for the SIG when it was first formed and the name stuck. The name “Bluetooth” is actually very old! It is from the 10th century Danish King Harald Blåtand - or Harold Bluetooth in English. King Blåtand was instrumental in uniting warring factions in parts of what is now Norway, Sweden and Denmark - just as Bluetooth technology is designed to allow collaboration between different business sectors such as the computing, mobile phones and automotive industries.