



(Fig. 1.0) Photo source: https://www.flickr.com/photos/fluent_methods/

Mobile Usability Test Setup

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EXECUTIVE SUMMARY

Purpose

A usability test on mobile devices will reveal what problems customers — also referred to as users — are facing on **Company X's mobile site**. A successful responsive website design relies on this crucial information about what users need from the mobile interface.

A remote mobile usability test will reveal:

- Why customers are using the mobile site
- Customer satisfaction rate with the mobile site
- Task completion rates on the mobile site
- Where customers are hitting roadblocks in the interface and why
- How the mobile site is used in a customer's natural environment
- What gestures are being used by customers during interaction with the interface
 - Gesture accuracy and recognition rates

Hardware and Software Needs

- A small camera with an extendable arm and clamp to attach to a smartphone and tablet
- Mirroring software
- Another camera set up in the observation room to capture the user's facial expressions and gestures, plus a tripod
- Participant smartphone and/or tablet device, appropriate USB cords for each to attach to computer
- Two computers — one to capture the camera and audio feeds, and another to display the camera's feed for the observers
- Recording software on the computer
- A smart TV which can stream a movie or show

Test Setup

The Testing Space:

The participant will be left alone in a well-lit room with a couch, television, and coffee table, creating a casual feeling as if he or she was sitting in a living room. Before leaving the room, a test team member will attach the camera to the participant's device (see Figure 1.0).

The participant will hold the device in a natural manner — whatever is comfortable to them. The only difference will be the camera attached to the device, which should not intrude.

A second camera will be set up across from the couch and from a high enough vantage point to capture the participant's gestures. This second camera must have a microphone to capture the participant's vocal comments (participants will be asked to think aloud during the test).

Both cameras will be attached to a computer set up in the testing space which will have software to record the video and audio, and also the mobile device's screen.



Fig. 1.0 source: https://www.flickr.com/photos/fluent_methods/

The Observation Space:

While the test is being conducted, the observers will be in a separate room nearby where they will monitor the two camera feeds and audio on a computer. The camera feeds and audio will be recorded on the computer in the testing space, which will have its screen shared on the computer in the observation space.

Observers also will have access to a mirror of the interface, which is being recorded by mirroring software installed on the device (if the device allows for it).

Figure 1.1 shows what observers will see.

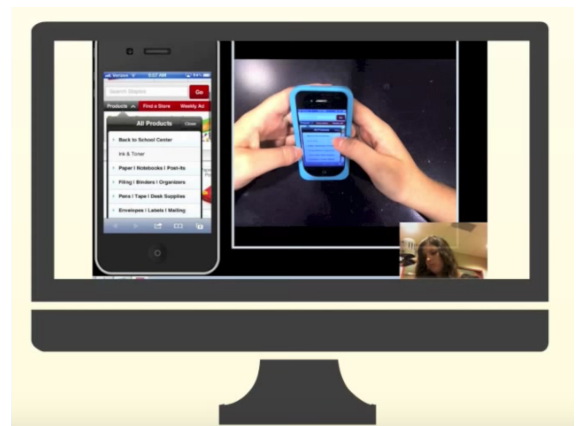
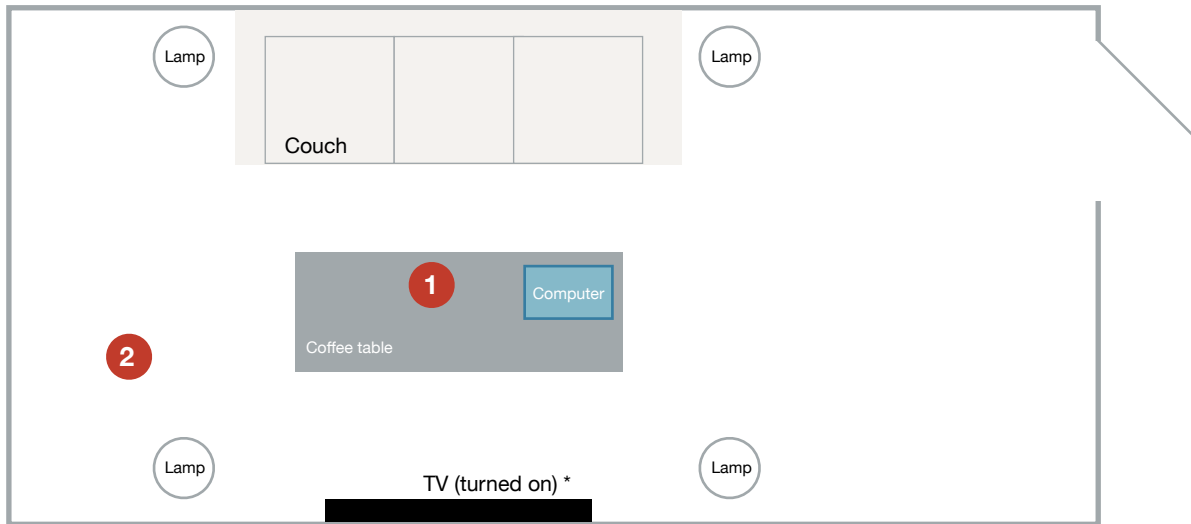


Fig. 1.1 source: <https://www.youtube.com/watch?v=QsEGskT-FR8>

Sketch of Spaces

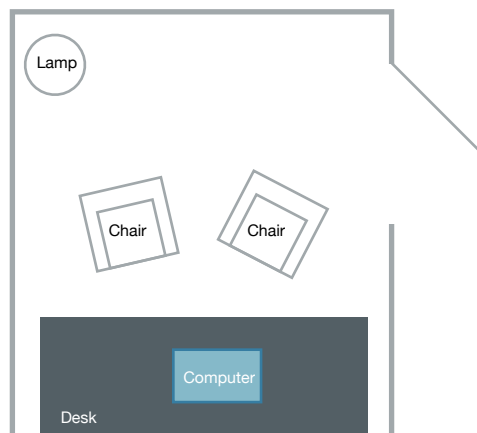
The Testing Space:



- 1 CAMERA ONE:** The camera to be attached to the participant's mobile device will be available on the coffee table. It will be connected to the computer via USB input.
- 2 CAMERA TWO:** This camera will be setup on a tripod. It will capture the participant's gestures, facial expressions and behavior while using the device. It also will be equipped with a microphone to record the participant's speech. It will be connected to the computer via USB input.

** The purpose of the TV is to help create a natural environment. The participant will be able to change channels.*

The Observation Space:



Reason for Configuration

Hardware:

This two-camera system is better than one because it will allow the observers to see the mobile device's screen in use from the user's perspective while also showing the user's behavior in the environment.

The cameras are hooked up directly to the computer to insure security and reliability. A bluetooth system would work, but may not be trusted in certain settings. The hard wire USB cords are necessary to avoid a disruption in the feed or a security breach. We don't want this session being fed out live on a strange device.

The testing room's computer screen will be shared with the computer in the observation room using a built-in screen sharing program (as one would find on a MacBook, or in Gchat, etc.). This will ensure security and is better than a bluetooth method for reasons described above.

Environment:

The testing room is set up to emulate a person's average leisure living space. The television's included to provide a more natural environment. It serves as a minor distraction to further simulate a participant's natural environment.

The couch allows the participant a level of comfort he or she would find in a living environment. The participant should be encouraged to sit down immediately upon entering the room.

Other inferior options:

The observer(s) could remain in the testing room with the participant, but that would create an unrealistic environment for the participant. The participant should not feel like he or she is being observed. In fact, there is no reason to know they are being observed in real time. They will only know that the session is being recorded.