# ASCR ECX Evaluation Toolkit

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# README for ETK Click Counting Module

## File List:

* ETK-ClickCountingQualtrics.html
* ETK-ClickCountingQualtrics.js
* ETK-ClickCountingREADME.docx
* ETK-ClickCountingSurveyFlow.png
* fiveCircles00.png

## Overview

This module is intended to be run within a Qualtrics survey. Qualtrics survey software can be found at www.qualtrics.com.

The Click Counting module is a very simple script designed to count how often a study participant clicks on a single image. A generic study within Qualtrics might consist of:

1. An IRB consent block/question.
2. An introduction block/question to explain the task and the threshold or change point of interest.
3. A study block with one or more Click Counting questions.
4. A demographic block containing any relevant demographic questions.

## Instructions for implementation of the Click Counting Module

There are two files that work together for the implementation, an HTML and a JavaScript file. Note that there is no CSS file for this module. The HTML and JS files are added in the individual question. Choose a Descriptive Text question type. Click on the question text and an HTML View tab will appear. Click on the HTML tab and insert the HTML file. The list of images will need to be updated as will the phrasing of the specific question under study. Lastly, to the left of the question is the settings icon. Click on the settings icon and choose Add JavaScript. The custom JavaScript code should be added there.

Detailed information on developing surveys and using the Qualtrics JavaScript API can be found on the Qualtrics website.

An example image is included so the user can explore the functionality. The image source variable is used to point to the URL and image name and must be modified by the user. Implementing the above files should produce a Qualtrics question that allows the participant to click multiple times on the image, counting the number of clicks.

The canvas size within the HTML file will need to be modified to fit the user’s image size. Within the JavaScript, there is text associated with the updating click counter. This may need to be modified to fit the user’s study question.

## Study Output: Embedded Data Variables

The Qualtrics JavaScript API allows the user to write out information via the setEmbeddedData method. The basic output is the number of clicks on an image. The embedded data variable MUST be created within the Survey Flow in order to save this information. A screenshot from an example Survey Flow is shown in the accompanying image file. The JavaScript file must be edited so that the embedded data variable names match. The default name is *nClicks*. More information on creating embedded data variables and the survey flow can be found on the Qualtrics website.

## Note on Module Functionality versus Qualtrics Heat Map Question

Qualtrics has a heat map question which outputs (x,y) location data for each click. However, there is a maximum of 10 clicks for the heat map question. This click counting module allows an unlimited number of clicks. However, this module is designed to bring in an image from an outside server. Therefore, the .getImageData method for canvas will not work (tainted by cross-origin data error) to avoid security issues. If a user needs to have the image color information, that can only be done if the image is uploaded directly to Qualtrics and accessed via its unique Qualtrics link. A useQualtricsServer flag is included so the user can switch to a Qualtrics loaded image and the image color data is then loaded into an embedded data variable, *Colors*.

## Amazon Mechanical Turk

Amazon Mechanical Turk, <https://www.mturk.com/mturk/welcome>, is a crowdsourcing site that can provide a convenient source of study participants for online studies. A URL link to a Qualtrics study can be input into an Mturk HIT to launch a study. More information can be found on the Mechanical Turk website.

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