

# User Guide for Qualtrics® Minute Discounting Template

Latest version: 1.1 (Aug 16, 2017)

Authors: Mikhail Koffarnus, Brent Kaplan, & Jeff Stein

## o. Changelog

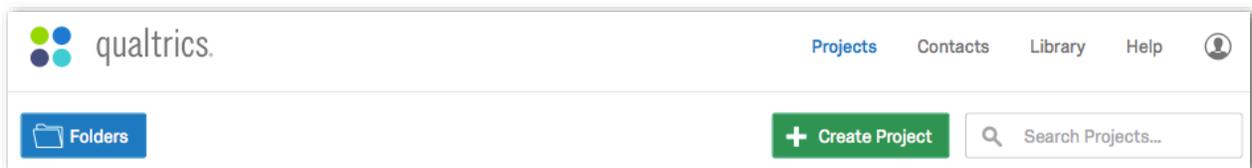
- a. Version 1.0 (June 30, 2017)
  - i. This was the initial version
- b. Version 1.1 (August 16, 2017)
  - i. Fixed incorrect ED50 values that were reported by Version 1.0 (k values were correct). If you used this version, correct ED50 values can be found by dividing 1 by your k values ( $ED_{50} = 1/k$ ).
  - ii. Improved the precision of both k values and ED50 values, extending each to more decimal places. They now exactly match the python version of this task we used in our original paper (Koffarnus & Bickel, 2014).

## 1. Description

The current document is a user guide for the Qualtrics Minute Discounting Template. This guide and the template is a companion to the article "A 5-trial adjusting delay discounting task: Accurate discount rates in less than one minute" by Koffarnus & Bickel (2014) published in *Experimental and Clinical Psychopharmacology*. A prerequisite for using the template is that you have access to creating projects in Qualtrics Research Suite ([www.Qualtrics.com](http://www.Qualtrics.com)).

## 2. Importing

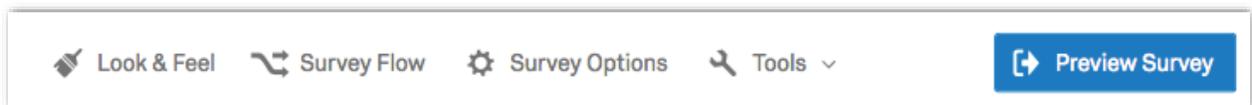
- a. First, download the file named: MinuteDiscountingTemplate1.1.qsf from <https://goo.gl/hroxs8>
- b. In your personal Qualtrics account, click on the "+ Create Project" button



- c. Then click "From a File" under the "Create From Existing" list on the left-hand side of the pop-up box. Select the file you just downloaded, give it a project name, and then click "Create Project" in the bottom right-hand corner.

## 3. Setting Task Parameters with Embedded Data Fields

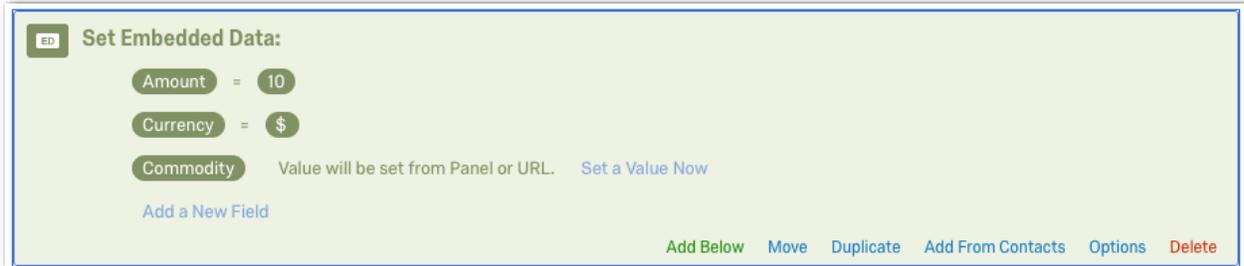
- a. Navigate to the survey and click "Survey Flow" at the top.



- b. Here you will see three embedded data fields. They include: (1) Amount, (2) Currency, and (3) Commodity. These embedded data fields will be used throughout

the survey and need to be set to your specific research project requirements. By default, the Amount (i.e., the larger, later amount) is equal to "1000" and the Currency is "\$". No Commodity is set by default.

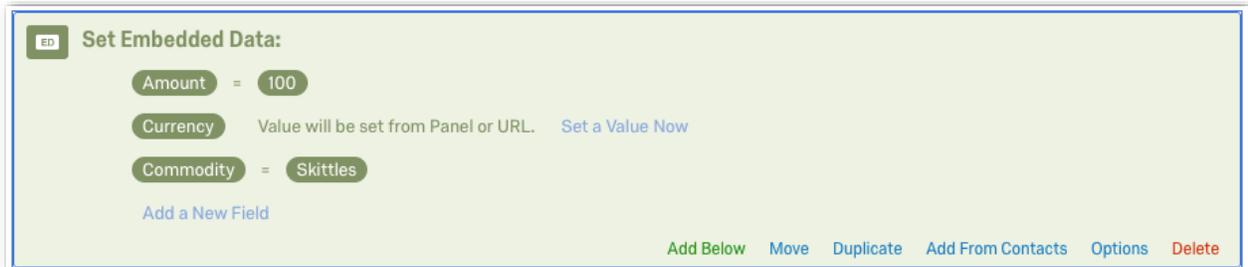
- c. If you were running a research project and assessing discounting using a \$10 larger, later amount, you would change the Amount to "10", keeping the Currency field the



The screenshot shows a panel titled "Set Embedded Data" with an "ED" icon. It contains three rows of settings: "Amount" set to "10", "Currency" set to "\$", and "Commodity" set to "Value will be set from Panel or URL" with a "Set a Value Now" link. At the bottom left is "Add a New Field" and at the bottom right are "Add Below", "Move", "Duplicate", "Add From Contacts", "Options", and "Delete" buttons.

same. If a different currency is desired (e.g., € or £), this field can be edited.

- d. If you were running a research project and assessing discounting of 100 Skittles, you would change the Amount to "100", delete the "\$" from the Currency field (making sure you DO NOT delete the word "Currency", and set the Commodity value to "Skittles". Note that unless the commodity is a proper noun, it will look better if it is in lowercase characters.



The screenshot shows the "Set Embedded Data" panel with "Amount" set to "100", "Currency" set to "Value will be set from Panel or URL" with a "Set a Value Now" link, and "Commodity" set to "Skittles". The "Add a New Field" button is at the bottom left, and the "Add Below", "Move", "Duplicate", "Add From Contacts", "Options", and "Delete" buttons are at the bottom right.

- e. Once you've made these changes, click on the "✓ Save Flow" button.

#### 4. Scoring

The template automatically calculates discount rates and associated Effective Delay 50 (see Yoon & Higgins, 2008 for more) according to the scoring logic in Koffarnus & Bickel (2014).

To see where this occurs, in the main survey editing screen (see immediately preceding screenshot) click the  button and click "Scoring..."

Under "Category", you may view scoring for both k values ("k value") and Effective Delay 50 ("ED50"). Please do not edit any of these values as it may lead to the survey incorrectly reporting these values and the scoring procedure is not influenced by any changes to the amount or commodity variables.

#### 5. Participant Experience

We urge you to test the survey out several times before distributing. We note some aspects of the task:

- a. First, we have included certain code to center the next button (" >> "). This applies to the entire survey so if you import questions and/or blocks from other surveys, they will inherit this change. We have made this customization to reduce side bias. (Note: centering is accomplished via CSS in the "Look and Feel" tab).
- b. Second, we have specified that the location of each of the question options (i.e., the smaller, sooner and larger, later alternatives) be randomized across trials, again in an attempt to reduce side bias. (Note: this is accomplished in Qualtrics built-in question customization).
- c. Third, the next button will appear after approximately 3 sec if one of the alternatives is selected within those 3 sec. If neither alternative is selected by the 3 sec mark, the button will stay hidden until an alternative is selected. We have made this customization to reduce participants "speeding through" the survey. (Note: this is accomplished via Javascript inserted for each question).

## 6. User Customization

Customization is up to you, the user. However, much of the customization will be linked to the degree of familiarity with Qualtrics. Here we provide a possible example of how to customize this template:

Imagine that you would like to run a within-subject project where participants complete two different magnitudes of the larger, later amount (e.g., \$10 and \$1000). One could accomplish this in at least one way (but again, relies on the user's degree of experience with Qualtrics).

This method would be to create two different projects using the template and specifying one project to have the embedded data field, Amount equal to "10" and the other to "1000". In the "Survey Options" tab on the main survey editing screen, one could select the option to "Redirect to a full URL, ex. 'http://www.qualtrics.com':". This could redirect to the URL of the other magnitude survey.

## 7. Warranty Information

This program is distributed in the hope that it will be useful, but without any warranty; without even the implied warranty of merchantability or fitness for a particular purpose. Basically, this means that we can only help so much if things go wrong, especially if this template is further customized. Please be mindful of any changes you make and always test the survey for issues before disseminating.

## 8. References

Koffarnus, M. N., & Bickel, W. K. (2014). A 5-trial adjusting delay discounting task: accurate discount rates in less than one minute. *Experimental and Clinical Psychopharmacology*, 22(3).

Yoon, J. H., & Higgins, S. T. (2008). Turning k on its head: Comments on use of an ED<sub>50</sub> in delay discounting research. *Drug and Alcohol Dependence*, 95(1).