MIX 2.0 tutorial

Labeling graphs
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Prerequisites
This tutorial assumes you have activated and started MIX 2.0 Pro and you have loaded the built-in dataset called 'Arrol'.

Tutorial content
One of the limitations of Excel for data analysis has been the lack of a good utility to label the markers in an Excel chart. MIX 2.0 introduces the graph labeler, which can label all meta-analysis graphs that could need labeling in MIX.

Creating a funnel plot
MIX 2.0 has many plots that in which the markers can be labeled. One good example is the heterogeneity funnel plot. Create it by clicking on ‘Heterogeneity funnel plot’ in the ‘Exploration’ menu of the ‘Meta-analysis’ group in the MIX ribbon interface.

This will create a funnel plot, similar to the one below. For details on how to interpret the graph, see the meta-tutor.
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Labeling a data series in the graph

To create data columns in forest plots, MIX 2.0 provides you with a graph labeler that has a special function for labeling forest plots with data columns. Start the graph labeler by clicking ‘Graphs’ and then ‘Label graphs’ in the ‘Edit’ group of the MIX ribbon interface.

The graph labeler dialog box will pop-up. By default, it starts on the ‘Create marker labels’ page, which is exactly where you want to be for this tutorial. It will look like this:

With the graph labeler you can label marker series (a group of markers that belong together) or individual single markers. The top part of the dialog gives you the option to choose between these and it shows you which series have been recognized by the graph labeler as a type of series that can be labeled. In this graph, this is only the ‘Study marker’ series, but in some graphs you can label more. In the bottom part of the dialog you can choose the content of the label. This can be a data variable from the dataset or from the analysis or a manual entry. Let’s start by labeling the ‘Study markers’ series with the IDs of the corresponding studies in the dataset. To do this, don’t alter the labeler settings and simply click the blue ‘Label’ button in the bottom right of the dialog. The graph should now look like this:
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Adjusting the label position of a data series
By default, the graph labeler will put the labels above the study markers. In this case, this is not so good because the two markers at the top are aligned almost vertically. To solve this, the graph labeler has a position adjuster which can be shown by clicking on the ‘Adjust label positioning’ part of the graph labeler.

The dialog has many buttons and each button’s function is explained below:

Move the label to the top (T), bottom (B), left (L), or right (R) of the marker(s)

Move the labels to the top, bottom, right, or left by the number of picas shown in the number box

A number indicating by how much picas the label should be moved on the graph

Move the labels to the far left or far right of the graph

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Align the labels to the left, center, or right of the label column

Now that you know the functions of the buttons, move the ID labels of the ‘Study markers’ series to the right side of the markers by clicking the blue ‘R’ button. If you haven’t selected the labels, you will get an error message like this:

Follow the instructions and select the marker series labels (the labels, not the markers themselves) and try again. The result should look like this:

Labeling an individual marker

So far, we have labeled an entire marker series but there may be instances where you would like to label only a single marker. For instance, you would like to show the sample sizes of the studies with IDs 1 and 2. To do this, first select the marker labels in the graph and click ‘Clear’ in the ‘Create marker labels dialog’.

To label individual markers, first choose ‘Label single marker’ under ‘Markers and series’. Next, under ‘Contents’ choose ‘Sample size’ from the dropdown list of ‘Data variable entry’. Finally, click twice (not a double click, but rather two separate clicks) on the topmost marker and then click ‘Label’. Repeat the latter for the other marker at the top of the graph and finally move the labels to the right of the marker (follow the instructions in the previous section). The result should look like the graph above, with next to the top markers the numbers 309 and 288 instead of 1 and 2, respectively.

Finally, you can also create labels with custom text for individual markers. To do this, follow the instructions above, but instead of choosing ‘Sample size’ from the dropdown list, select ‘Manual entry’ under ‘Contents’.
and enter “Large studies” in the textbox. When you click ‘Label’ the label will be created in the graph. In this case you will only need a label for one point. Your last graph of this tutorial should look something like this:

That was the tutorial. Good luck with your meta-analysis!