

Analyzing and Visualizing Repeated-Measures Needs Assessment Data Using the Ranked Discrepancy Model

Appendix

Analytical Process

There are three major steps to analyze data using the Ranked Discrepancy Model (RDM) in Microsoft Excel: (1) open/import raw data into excel, (2) calculate a Ranked Discrepancy Score (RDS) using the formula for each pair of observations, and (3) find the mean RDS value for each item.

Researchers are encouraged to download the sample data to test the RDM in Excel: [Dataset](#)

- There are four (4) worksheets in the sample data file:
 - *Data* (Figure 2 in manuscript): This worksheet contains the raw data showing one categorical variable (Sex) and five needs-based items. Each needs-based item has two paired observations on a 5-point scale; respondents' perceptions of the importance (I) of the item and their satisfaction (S) with the item. Note, all categorical variables must be coded as text.
 - *RDM* (Figure 4 in manuscript): This worksheet contains the RDS calculation for OR across all items. The formula was applied for the first pair, dragged across for all pairs, then dragged down for all observations ($n = 50$).
 - *Pivot Data* (Figure 5 in manuscript): This worksheet only includes the categorical variables and RDS scores needed for the pivot visualization.
 - *Viz*: This worksheet contains a pivot table created from the pivot data. It shows the RDS by Sex in a table and figure.

Citation:

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