

Data Analysis in Qualtrics - Stats iQ

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Today we will cover the following:

- Purpose and benefits of Stats iQ
- Demonstration of Stats iQ
 - Create New Variables
 - Describe Variables
 - Perform Basic Statistical Analyses
 - Review settings

What is Stats iQ?

- Enables anyone, regardless of statistical background, to apply statistical techniques to:
 - Uncover meaning
 - Identify trends
 - Produce predictive models

Stats iQ can perform the following statistical analyses:

Bivariate:

- T-test
 - (two categories vs. numbers)
- ANOVA
 - (three or more categories vs. numbers)
- Games-Howell post hoc tests
 - (three or more categories vs. numbers)
- Cohen's f
- Correlation
 - (numbers vs. numbers)
- Pearson correlation
- Spearman correlation
- Point Biserial Correlation

- Cohen's d
- Paired t-test
 - (numbers vs. numbers)
- Fisher's Exact Test
 - (two categories vs. two categories)
- Chi-squared
 - (three or more categories vs. categories)
- Kramer's V
- Z-test
 - (categories vs. categories)
- Time-series analysis
- Difference in differences (DID, DD)

Regression:

- Linear (when output variable is numbers)
 - OLS (traditional)
 - M-estimation (downweights outliers)
 - Ridge (useful if two input variables are highly correlated)
- Logistic/Logit (when output variable is categories)

Benefits of Stats iQ

- Makes advanced statistical analysis accessible.
- Move much faster through analyses.
- Because you move faster, you can ask more questions.
- All data and analyses are housed in one program.

Recommended Practices

- Easiest question types to analyze:
 - Multiple Choice, Matrix, Slider, and Rank Order
- You may have up to 750 cards in your workspace
- Common Analysis Workflow:
 - First, think through the question you'd like to answer
 - Examine the distribution of the data (Describe)
 - Find relationships (Relate)
 - Run regression if you'd like to go further

Demonstration

The screenshot displays the XM Stats IQ interface. At the top, the XM logo is on the left, followed by a menu icon and the text 'Stats IQ workshop'. On the right, there are icons for help, notifications (with a '9+' badge), and a user profile. Below this is a navigation bar with tabs for 'Survey', 'Workflows', 'Distributions', 'Data & Analysis' (highlighted in yellow), 'Results', and 'Reports'. Underneath, there are sub-tabs for 'Data', 'Text IQ', 'Stats IQ' (highlighted in yellow), 'Crosstabs IQ', and 'Weighting'. The main workspace is titled 'Workspace 1' and includes an 'Add Filter' dropdown. On the right side of the workspace, it shows 'Responses: 305' and icons for a report and a settings menu. A left-hand sidebar contains several green buttons: '+ Describe', '+ Relate', '+ Regression', and 'Advanced'. Below these is a search box labeled 'Search variables...' and a list of variables: 'Duration', 'Finished', and 'Recorded Date'. At the bottom of the sidebar is a green button '+ Create or Clean Variable'. The main content area is titled 'Describe | Duration' and features a 'Summary of Duration' section. This section contains a table with the following data:

Sample Size	Median	Average	Confidence Interval of Average	Standard Deviation	Minimum	Maximum
305	147	183.4	163.20 to 203.59	179.3	31	1,828

Below the table, there is a link 'Show percentile values' and a 'Bucketing' input field. At the bottom, there are two buttons: 'Percent' and 'Count'.

Resources

- Qualtrics XM Basecamp
 - Provides free on-demand training
- Qualtrics Communities
 - Commonly asked and answered questions from the regular to the obscure.
 - Answers provide full, complete, and reproducible information
- Research Design & Data Analysis Lab:
 - <https://www.uttyler.edu/research/ors-research-design-data-analysis-lab/>
- Schedule a consultant appointment with me:
 - <https://www.uttyler.edu/research/ors-research-design-data-analysis-lab/ors-research-design-data-analysis-lab-consultants/>
- Check out the Lab Resources (including recording of this webinar):
 - <https://www.uttyler.edu/research/ors-research-design-data-analysis-lab/resources/>