

Descriptive Statistics for Likert Data

Standalone verified Python analysis

Method: Descriptive Statistics for Likert Data

Method type: descriptive_analysis

Design: Ordinal summaries and complete response distributions for six five-point items.

Variables: famrel, freetime, goout, Dalc, Walc, health

Inference scope: No hypothesis test is required; medians, modes, quartiles, frequencies, means, and standard deviations are reported descriptively.

Formula: Median= $Q_{0.50}$; IQR= $Q_{0.75}-Q_{0.25}$; percent_j= $100*n_j/n$.

Source rows: 649

Calculated metrics:

items: 6

respondents: 649

overall_item_mean: 2.935798664612224

minimum_item_median: 1.0

maximum_item_median: 4.0

total_response_cells: 3894

Independent reference values:

items: 6

respondents: 649

overall_item_mean: 2.935798664612224

minimum_item_median: 1.0

maximum_item_median: 4.0

total_response_cells: 3894

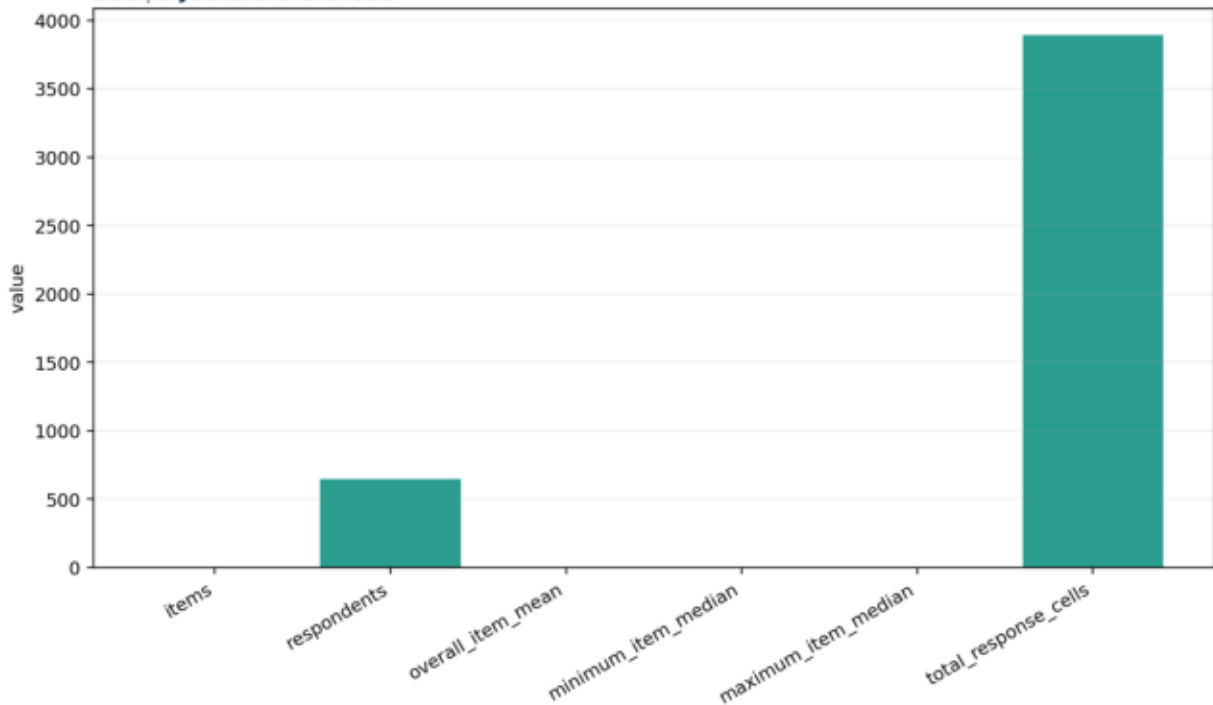
Interpretation:

Medians, modes, quartiles, and category frequencies are primary for ordered items.

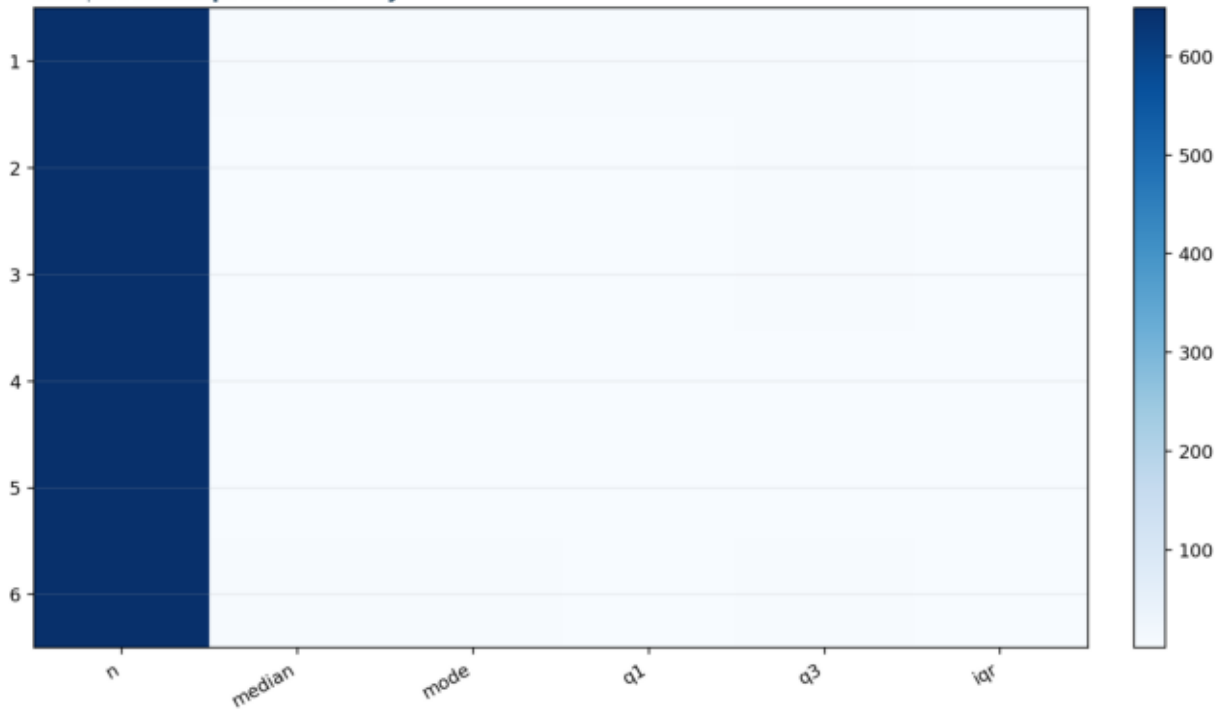
Means and standard deviations are retained as supplementary summaries.

Primary Metrics

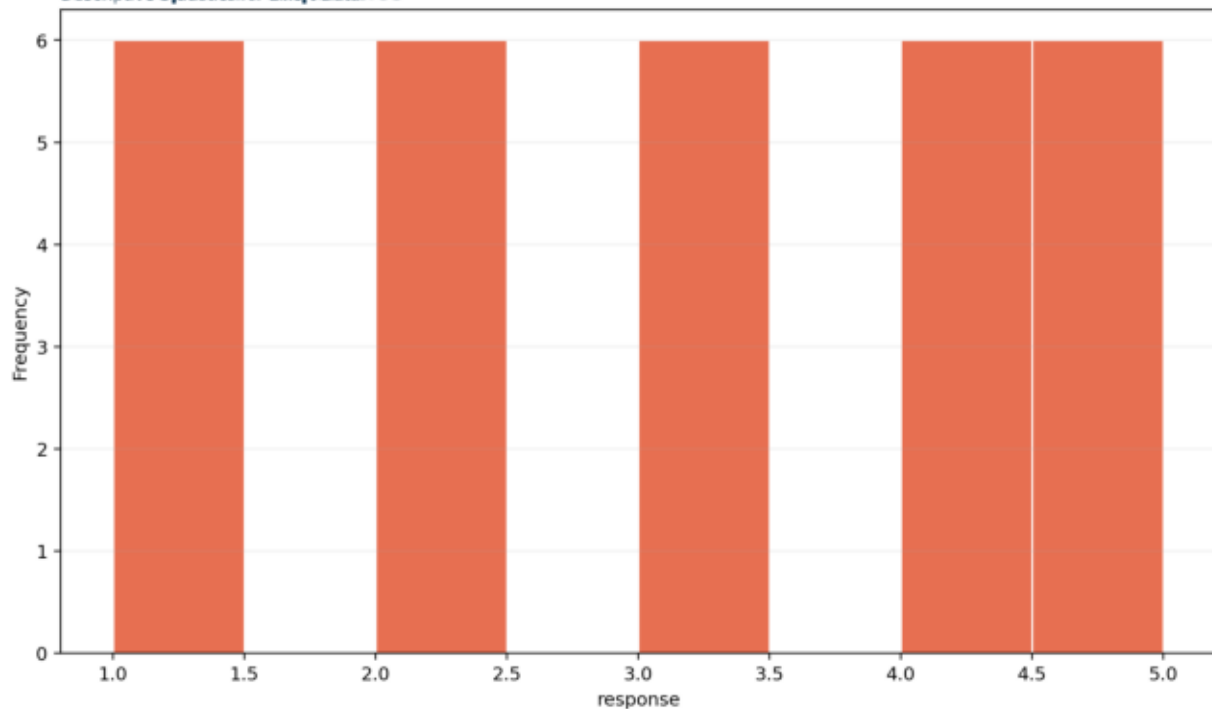
Prepared for Likert Data



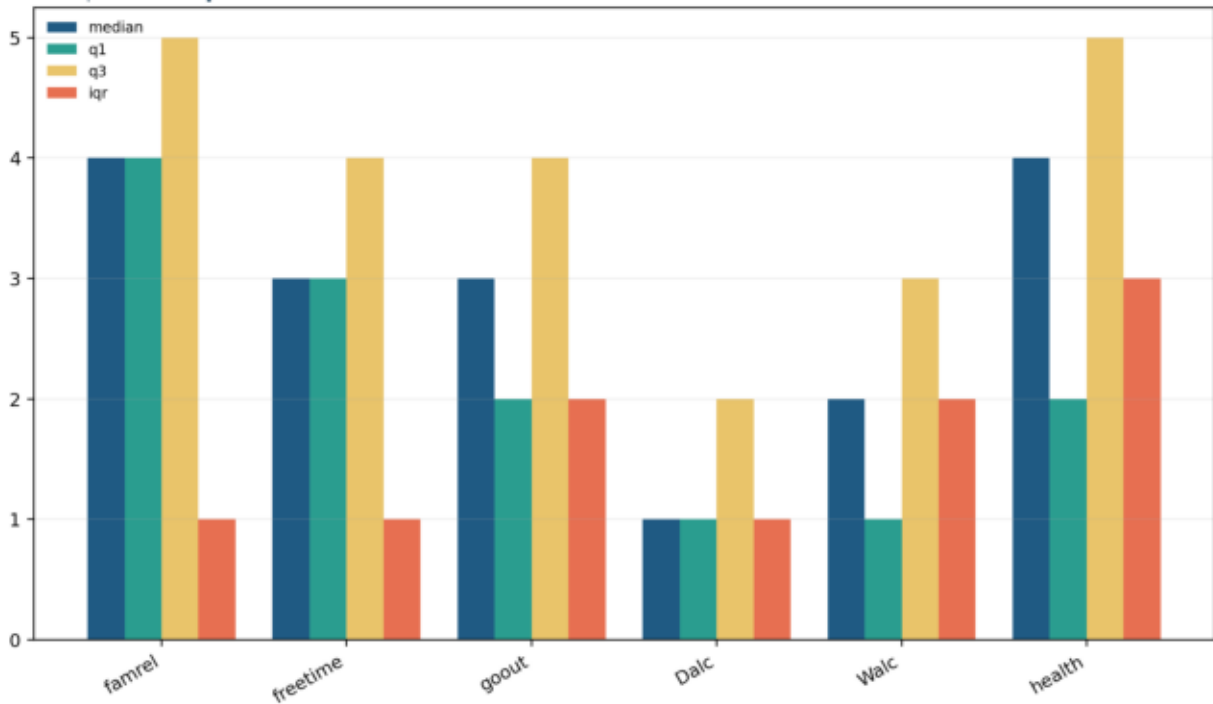
Ordinal Descriptive Summary



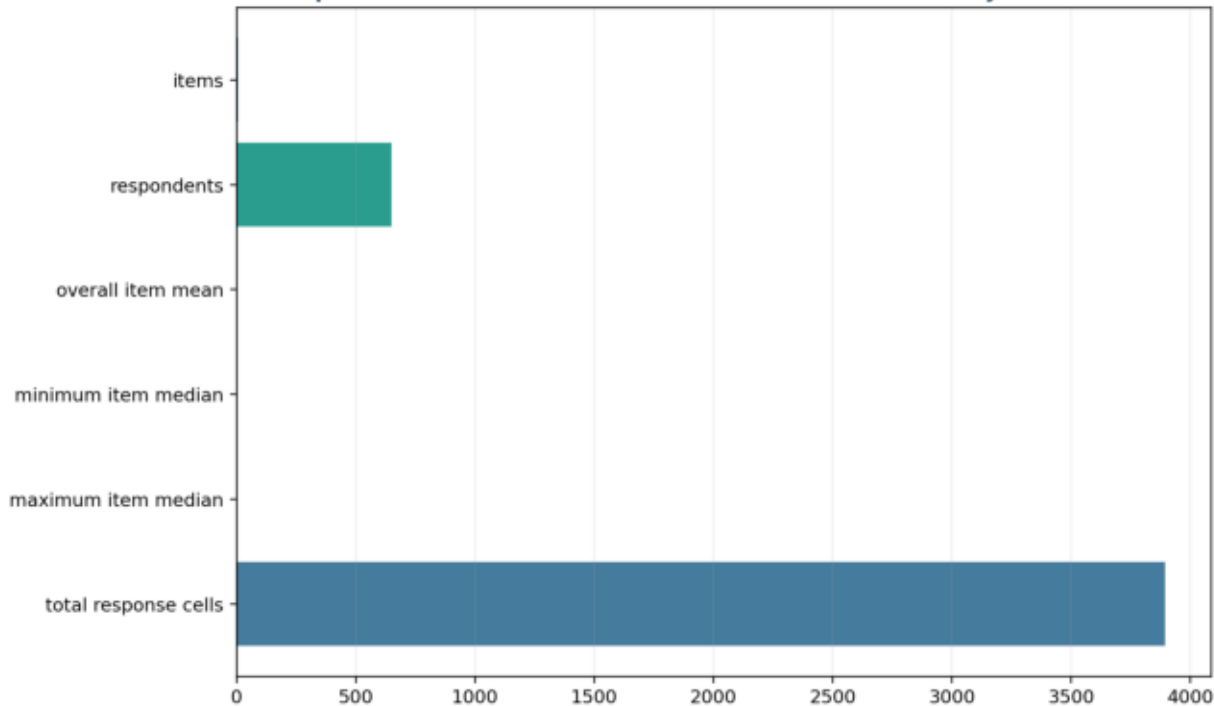
Item Response Frequencies



Median And Iqr for Likert Data



Descriptive Statistics for Likert Data verified result summary



Primary Metrics

metric	value
items	6
respondents	649
overall_item_mean	2.9358
minimum_item_median	1
maximum_item_median	4
total_response_cells	3894

Ordinal Descriptive Summary

item	n	median	mode	q1	q3	iqr	mean	sd
famrel	649	4	4	4	5	1	3.93066	0.955717
freetime	649	3	3	3	4	1	3.18028	1.05109
goout	649	3	3	2	4	2	3.1849	1.17577
Dalc	649	1	1	1	2	1	1.50231	0.924834
Walc	649	2	1	1	3	2	2.28043	1.28438
health	649	4	5	2	5	3	3.53621	1.44626

Item Response Frequencies

item	response	frequency	percent
famrel	1	22	3.38983
famrel	2	29	4.46841
famrel	3	101	15.5624
famrel	4	317	48.8444
famrel	5	180	27.735
freetime	1	45	6.93374
freetime	2	107	16.4869
freetime	3	251	38.6749
freetime	4	178	27.4268
freetime	5	68	10.4777
goout	1	48	7.39599
goout	2	145	22.3421
goout	3	205	31.5871
goout	4	141	21.7257
goout	5	110	16.9492
Dalc	1	451	69.4915
Dalc	2	121	18.6441
Dalc	3	43	6.62558
Dalc	4	17	2.61941
Dalc	5	17	2.61941
Walc	1	247	38.0586
Walc	2	150	23.1125
Walc	3	120	18.49
Walc	4	87	13.4052
Walc	5	45	6.93374
health	1	90	13.8675

Median And Iqr

item	median	q1	q3	iqr
famrel	4	4	5	1
freetime	3	3	4	1
goout	3	2	4	2
Dalc	1	1	2	1
Walc	2	1	3	2
health	4	2	5	3