

Corrected Item-Total Correlation

Standalone verified Python analysis

Test: Corrected Item-Total Correlation

Design: Each transformed scale item correlated with the sum of the other five items.

Variables: famrel, freetime, goout, Dalc_R, Walc_R, health

Null hypothesis: An item has zero linear association with the scale score excluding itself.

Formula: $r_{i,corrected} = \text{cor}(X_i, \sum_{j \neq i} X_j)$.

Source rows: 649

Calculated metrics:

mean_corrected_r: 0.06145259803842871

minimum_corrected_r: -0.10476993802912485

maximum_corrected_r: 0.22659733045787755

items: 6

Independent reference values:

mean_corrected_r: 0.06145259803842871

minimum_corrected_r: -0.10476993802912485

maximum_corrected_r: 0.22659733045787755

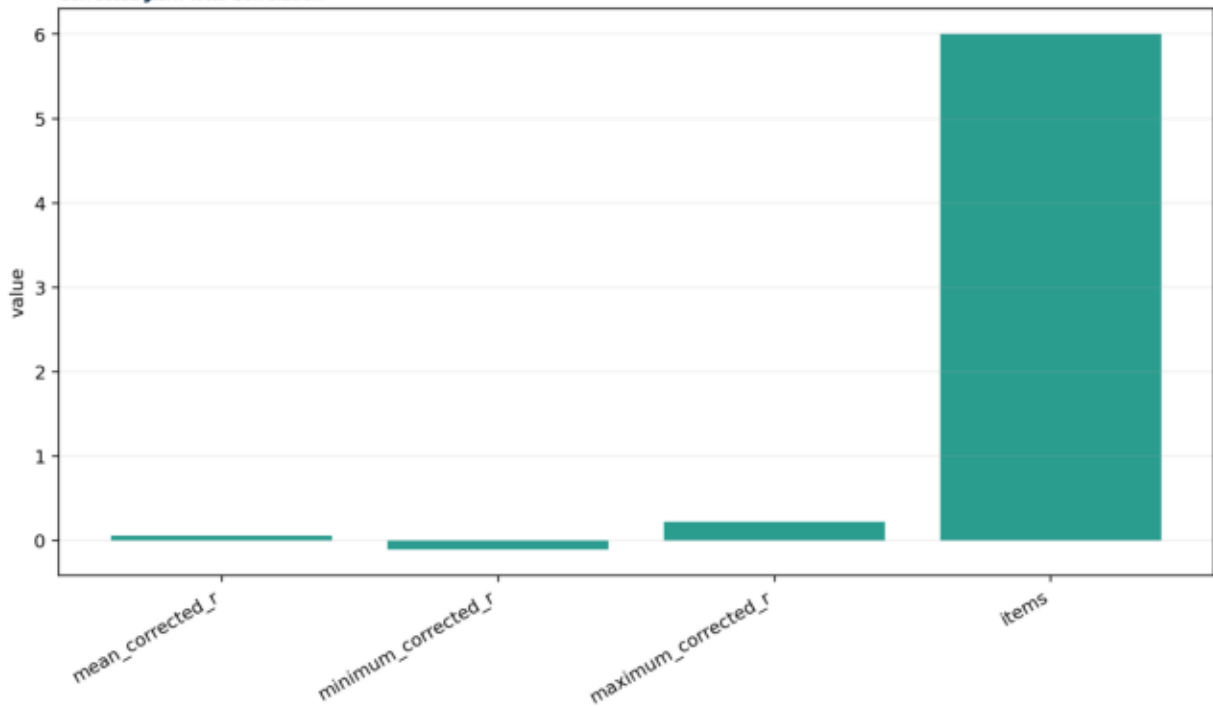
items: 6

Interpretation:

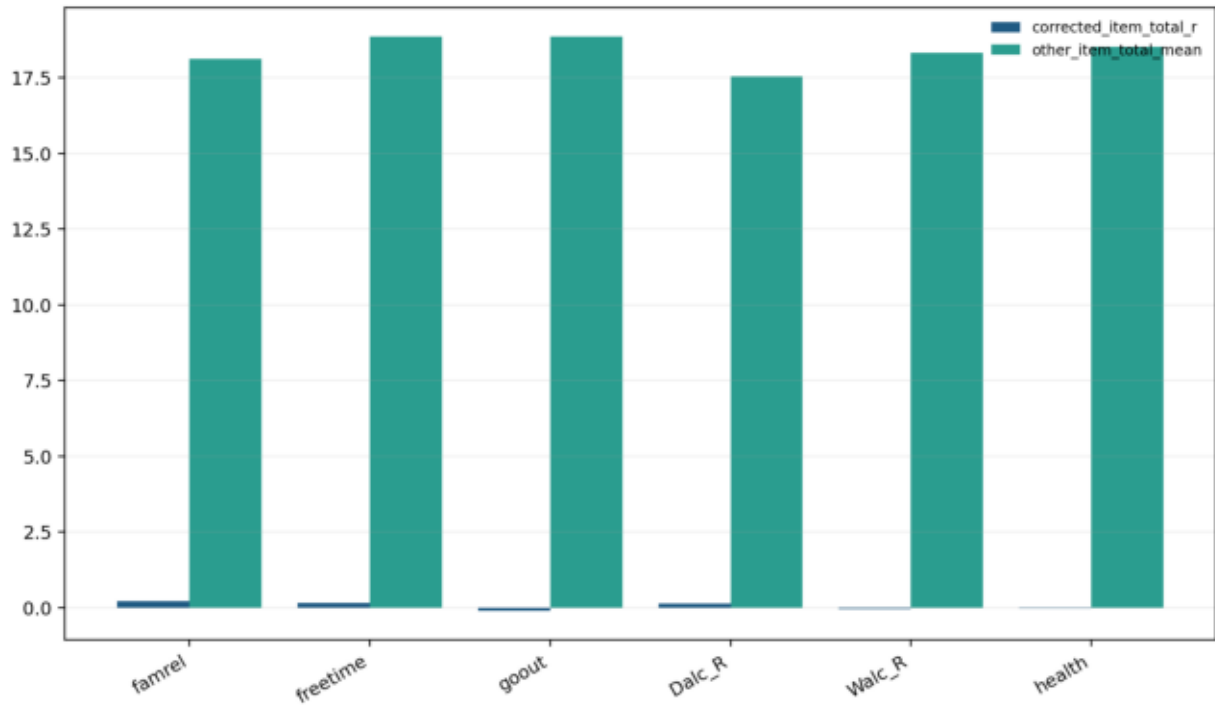
Each target item is removed from its comparison total.

Mean corrected item-total $r=0.061453$.

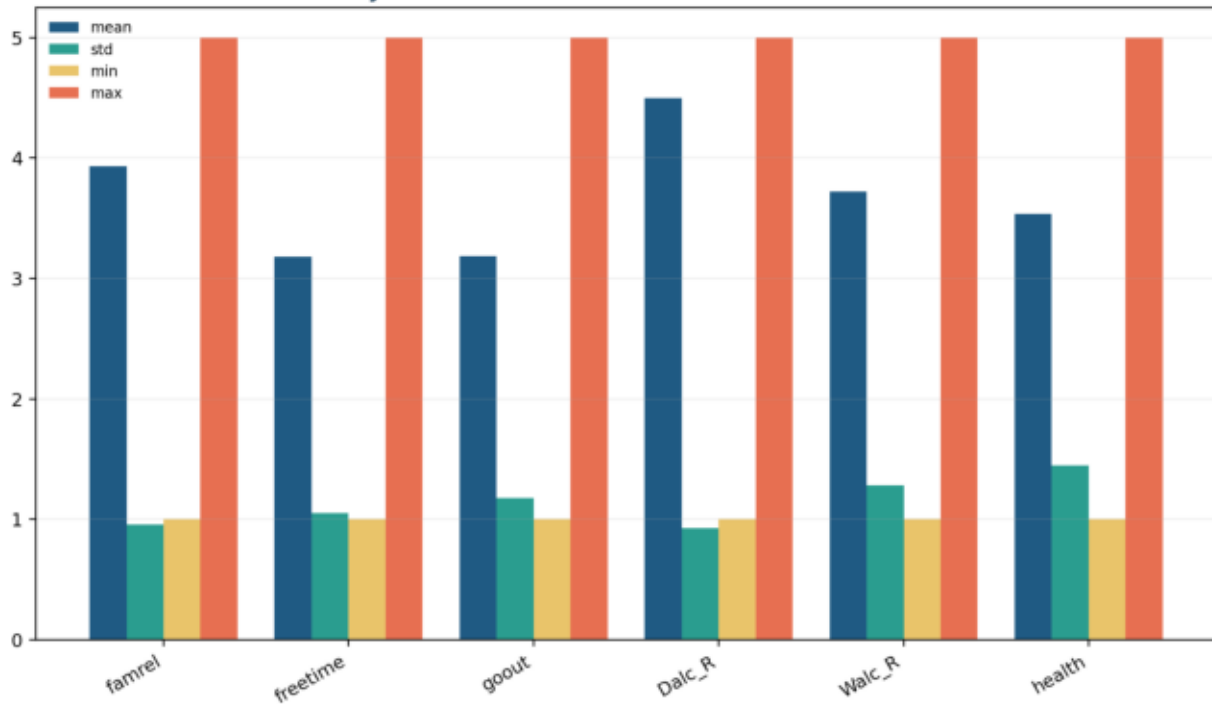
Primary Metrics



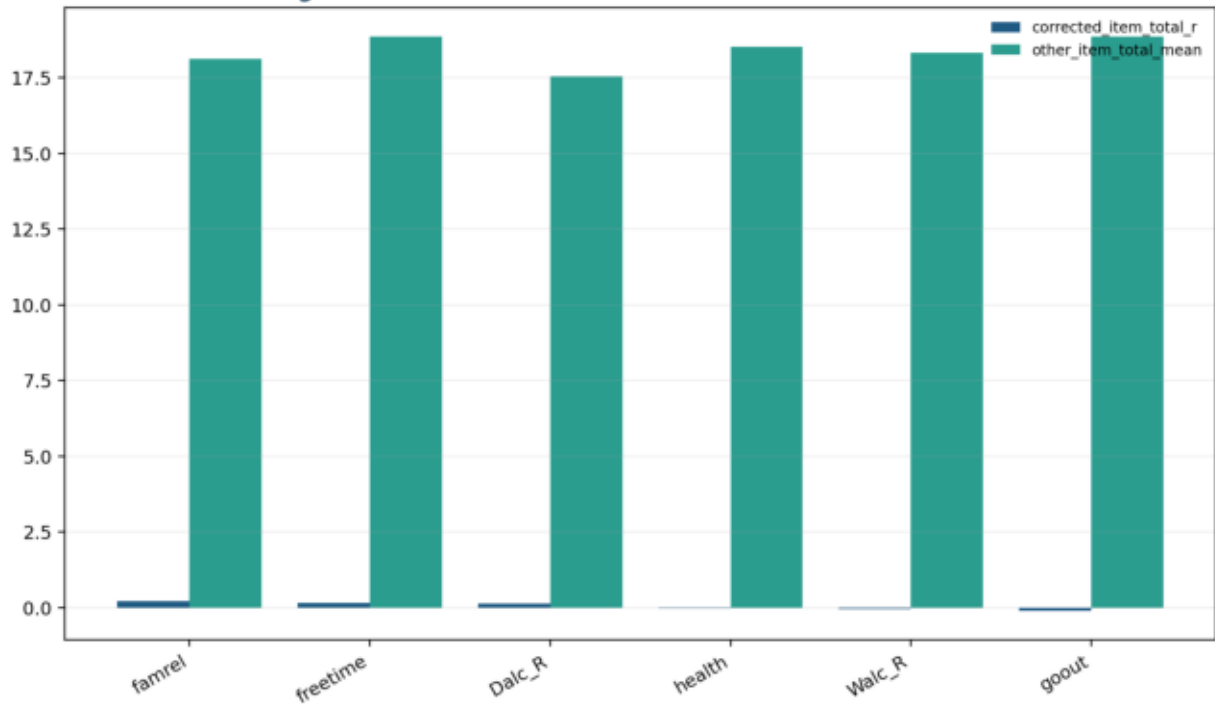
Corrected Item Total Results



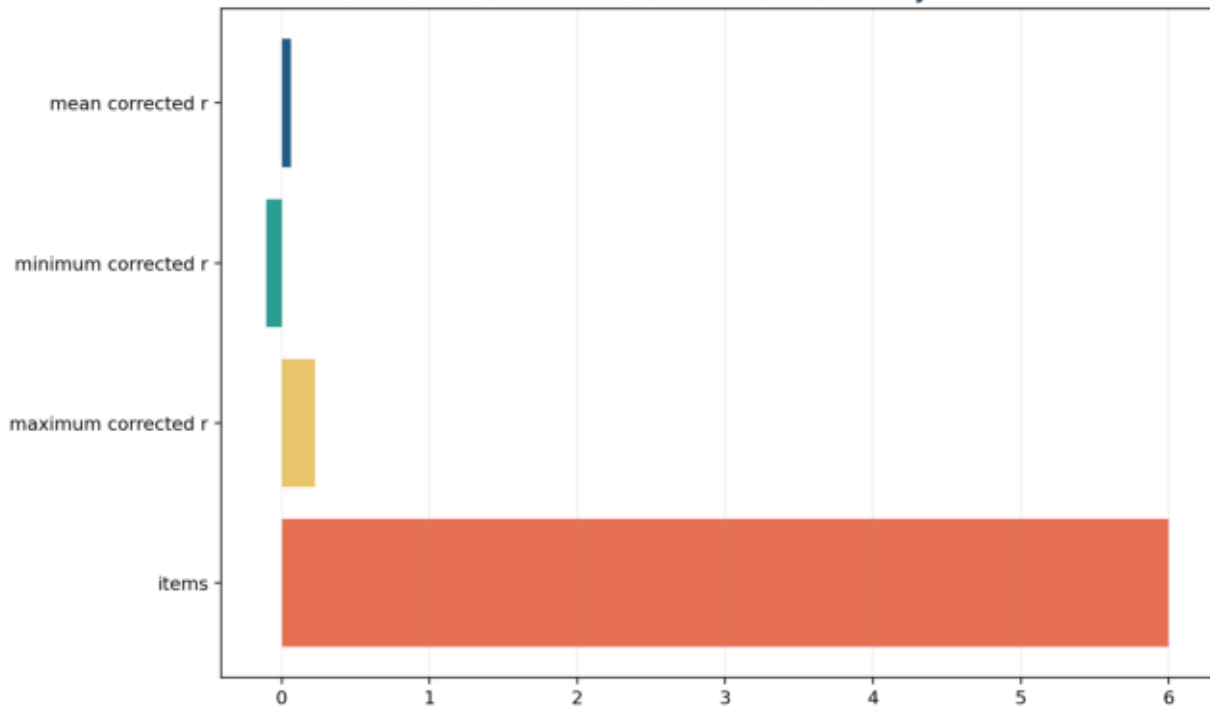
Transformed Item Summary



Correlation Ranking



Corrected Item-Total Correlation verified result summary



Primary Metrics

metric	value
mean_corrected_r	0.0614526
minimum_corrected_r	-0.10477
maximum_corrected_r	0.226597
items	6

Corrected Item Total Results

item	corrected_item_total_r	other_item_total_mean
famrel	0.226597	18.1186
freetime	0.151318	18.869
goout	-0.10477	18.8644
Dalc_R	0.139144	17.5516
Walc_R	-0.0331203	18.3297
health	-0.0104535	18.5131

Transformed Item Summary

item	mean	std	min	max
famrel	3.93066	0.955717	1	5
freetime	3.18028	1.05109	1	5
goout	3.1849	1.17577	1	5
Dalc_R	4.49769	0.924834	1	5
Walc_R	3.71957	1.28438	1	5
health	3.53621	1.44626	1	5

Correlation Ranking

item	corrected_item_total_r	other_item_total_mean
famrel	0.226597	18.1186
freetime	0.151318	18.869
Dalc_R	0.139144	17.5516
health	-0.0104535	18.5131
Walc_R	-0.0331203	18.3297
goout	-0.10477	18.8644