



# Winsteps

## Rasch Measurement Software

[www.winsteps.com](http://www.winsteps.com)  
*Prompt, Perceptive, Powerful, Persuasive*

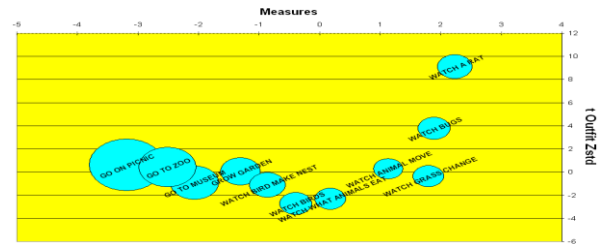
### Output Tables

36 Tables, many with subtables, report all aspects of the analysis: Person and item scores, measures, standard errors, quality-control fit statistics, summary statistics, reliabilities, subtotals, individual reporting, differential item functioning, rating scale functioning, score-to-measure conversion, Guttman scalograms, paired-comparisons, cheating detection, and more

Output Tables	Output Files	Batch	Help	Specification	Plots	Excel/RSSST	Graphs	Data Setup
Request Subtables				1. Variable maps			20. Score table	
Weight selection				2.2 General Keyform			21. Probability curves	
3.2 Rating (partial credit) scale				2.5 Category Averages			29. Empirical curves	
2. Measure forms (all)				3.1 Summary statistics			22. Scalograms	
10. ITEM (column): fit order				6. PERSON (row): fit order			7.2.1 PERSON Keyforms: unexpected	
13. ITEM: measure				17. PERSON: measure			17.3 PERSON Keyforms: measure	
14. ITEM: entry				18. PERSON: entry			18.3 PERSON Keyforms: entry	
15. ITEM: alphabetical				19. PERSON: alphabetical			19.3 PERSON Keyforms: alphabetical	
25. ITEM: displacement							7.2 PERSON Keyforms: fit order	
11. ITEM: responses				7.1 PERSON: responses			32. Control variable list	
9. ITEM: outfit plot				5. PERSON: outfit plot			33. PERSON-ITEM: DGF: DIF & DPF	
8. ITEM: infit plot				4. PERSON: infit plot			34. Comparison of two statistics	
16. ITEM: map				16. PERSON: map			35. PERSON Paired Agreement	
23. ITEM: dimensionality				24. PERSON: dimensionality			36. PERSON diagnostic PKMAPS	
27. ITEM: subtotals				28. PERSON: subtotals				
30. ITEM: DIF, between/within				31. PERSON: DPF, between/within				

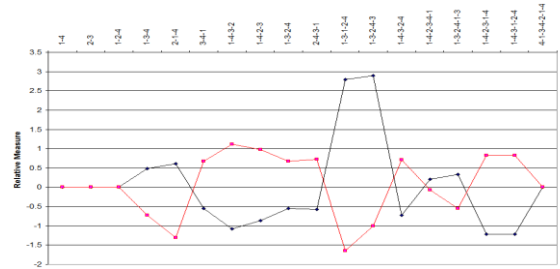
### Output Files & Excel Plots

16 output files for exporting measures, standard errors, quality-control fit statistics as EXCEL, SPSS or text files for input to other software. Immediate display, if desired. Here is a “Bond & Fox”-style Bubble Chart automatically displayed by Excel.



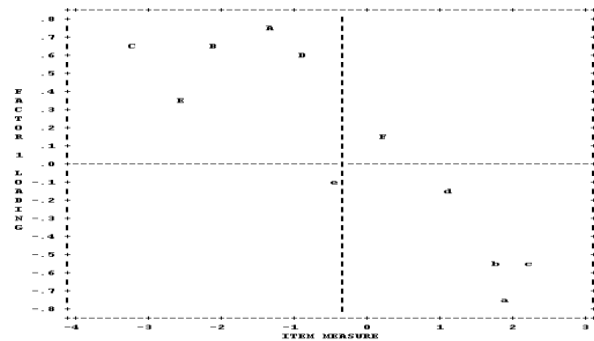
### Differential Item Functioning (DIF) Differential Person Functioning (DPF), Differential Test Functioning (DTF)

Detailed Tables and Plots of uniform and non-uniform DIF size and significance. Also Mantel-Haenszel and Mantel statistics. Differential Person functioning and Differential Person-group vs. Item-group functioning.



### Principal components analysis of residuals for multidimensionality

of persons or items. Reporting of unexpected observations helps identify problems in the data or instrument conceptualization. **Also:** Multiple concurrent analyses. Batch mode operation. Frequent enhancements (free for a year). Training seminars. *Need an extra feature? Tell us!*



### Help Feature

Full user documentation and many examples in the Help file of the 140+ user options. Detailed descriptions of every output table. 50 technical “special topics” address operational, analytical and interpretive issues. Free downloadable PDF of Program Manual.  
*Bond & Fox examples on winsteps.com*

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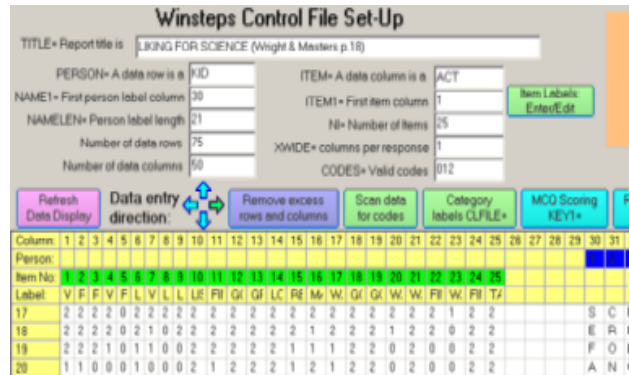


### Constructs linear measures from ordinal data:

Multiple-choice tests, dichotomies, attitude surveys, rating scales, observational protocols, partial credit items, answer keys, item rescoring.

*Missing data: no problem!*

Capacity: **Huge!** 9,999,999 persons, 60,000 items, (dichotomies, rating scales and/or partial credit), up to 255 categories per scale.



### Excel, R, SAS, SPSS, STATA import

Easy conversion to Winsteps control and data files using copy-and-paste procedure.



### What is being measured?

Construct validity: defining the latent variable items ordered: from *frequent* to *rare*, from *easy* to *hard*, from *loved* to *hated*. Item anchoring and weighting, tabular and graphical output. Estimates of item discrimination and guessability.

#### Map Of Items

100 + |<Rare>  
90 + T  
80 + Watch A Rat  
70 +S Watch Animal Move  
60 +M Watch What Animals Eat  
40 + Watch Bird Make Nest  
30 +S Go To Zoo  
20 + Go On Picnic  
|<Frequ>

### Who or What has been measured?

Predictive validity, Concurrent validity, Achievement, Attitude, Quality of Life: Who has more and who has less? Standard errors for significant differences. Person anchoring and weighting. Differential person function reporting. Subtotaling by demographic variables

ENTRY	RAW	MODEL	PERSON		
NUMBER	SCORE	COUNT	MEASURE	S.E.	PERSON
2	50	25	113.63	18.39	Rossner, Lawr
41	49	25	101.13	10.30	Fatale, Natas
34	48	25	93.54	7.51	Paster, Ruth
17	47	25	88.84	6.30	Schattner, Ga
50	46	25	85.32	5.60	Doepner, Tor
45	45	25	82.45	5.13	Mcloughlin, B
7	44	25	79.99	4.79	Wright, Benja
16	43	25	77.82	4.54	Buff, Marge B
40	42	25	72.82	4.54	Cheselle, Dav

### Are Items and Rating Scales functioning as intended?

Empirical and model item characteristic curves. (ICCs) with confidence bands for individual items or all items which share the same scale structure. Category probability curves. Test, item and category information functions. Test characteristic curve. Detailed statistics for each category: counts, measures, and quality-control fit statistics. Re-order and collapse categories. Remedy keying errors and reversed items. Multiple-choice scoring keys. Multiple ICCs on one graph.

