## Read Me First!

The dedicated support site for this book is: www.winsteps.com/bondfox3.htm

This information concerns the software and files to support your reading of Bond & Fox (3rd ed.) Please follow the instructions below and in the software downloads.

#### The book website provides downloads for:

Free Bond&FoxSteps3 Rasch analysis software; WINSTEPS software manual; Free Bond&FoxFacets3 software for many-facets Rasch analysis; FACETS software manual; (English language tutorials and data files are pre-loaded in Bond&FoxSteps3 and Bond&FoxFacets3. For tutorials in other languages, see the Dropbox link below.) Data files used in the Bond & Fox (3<sup>rd</sup> ed.) examples. Excel spreadsheet for testing invariance of estimates. (Invariance.xls)

The Bond&FoxSteps3 Rasch analysis software is a customized version of WINSTEPS, especially designed by Mike Linacre to accompany Bond & Fox (3rd ed.). WINSTEPS contains an absolutely comprehensive set of input, output and diagnostic features. I asked Mike to grey-out those functions I thought to be excess to the needs of readers of our book. When you are ready to move on to all the bells and whistles of the latest WINSTEPS version, go to: www.winsteps.com

## Bond&FoxSteps3 Installation

To install the Bond&FoxSteps3 Rasch analysis software on your computer: Download the zipped file onto your computer; Double click on the Bond&FoxSteps3 icon; Follow the installation instructions.

The first time you run Bond&FoxSteps3, it will check your computer for the necessary support software, i.e., Microsoft Excel and Acrobat pdf Reader.

Bond&FoxSteps3 is already fully loaded with specially prepared tutorials using the Bond & Fox data files. Those data files are already loaded into the Bond&FoxSteps3 software.

There are a number of ways to go through the Bond&FoxSteps3 tutorials; they match the chapters in Bond & Fox  $(3^{rd} ed.)$ 

Bond&FoxSteps3

Bond&Fox3Chapter2.pdf has some fun with the data from the Chapter 2 Math example.

Bond&Fox3Chapter3.pdf uses some data put together to match the Chapter 3 example.

Bond&Fox3Chapter4.pdf gets serious about using Bond&FoxSteps3 on the BLOT data.

Bond&Fox3Chapter5.pdf uses a number of advanced techniques to test for invariance. Bond&Fox3Chapter6.pdf introduces the RSM to analyze CEAQ Likert data. Bond&Fox3Chapter7.pdf uses the PCM to analyze the Piagetian interview data.

Bond&FoxFacets3 Bond&Fox3Chapter8.pdf is the Bond&FoxFacets3 tutorial for the Guilford data.

I strongly suggest that you follow the following graded sequence of tutorial exercises. Try these in order as you finish the appropriate chapter:

 $Bond \& Fox 3 Chapter 4.pdf \text{--} the BLOT \ data.$ 

Bond&Fox3Chapter6.pdf - CEAQ Likert data.

Bond&Fox3Chapter7.pdf - Piagetian interview data.

**Play with these before or after you read the chapters, as you like:** Bond&Fox3Chapter2.pdf has some fun with the data from the Chapter 2 Math example.

Bond&Fox3Chapter3.pdf uses some data put together to match the Chapter 3 example.

**Got control of the main data analysis features? O.K. Try this:** Bond&Fox3Chapter5.pdf - advanced techniques to test for invariance.

You should easily handle the whims of a many-facets analysis, now: Bond&Fox3Chapter8.pdf is the Bond&FoxFacets3 tutorial for the Guilford data.

#### Bond&FoxFacets3 Installation

The Chapter 8 analysis is a many-facets Rasch analysis of the original Guilford (1954) data of ratings of junior scientists. Mike Linacre has provided a customized version of his Facets software, called Bond&FoxFacets3, for your use. It is also preloaded with the Chapter 8 tutorial and the Guilford data file. For details

Download the the Bond&FoxFacets3 Rasch analysis software to your computer:

Double click on the Bond&FoxFacets3 icon; Follow the installation instructions.

The first time you run Bond&FoxFacets3, it will check your computer for the necessary support software, i.e., Microsoft Excel and Acrobat pdf Reader.

The free copy of Bond&FoxFacets3 is already fully loaded with a specially prepared tutorial using the Guilford data file. That data file is already loaded into the Bond&FoxFacets3 software. A second facets data file, essayschap8.txt contains data and control files for a Facets analysis of judged performance data for 50 young ESL students on their three written essays, as judged by their four (ESL) teachers. You can follow the principles from the tutorial guide for Chapter 8 to run your own independent analyses of the new file.

## Excel spreadsheet for testing invariance of estimates. (InvarianceB&F3.xls)

The original version of this XL spreadsheet was designed by colleague Peter Congdon. It provides a plot or estimates (items or persons) A v B and uses the A errors and B errors to construct 95% confidence bands for testing invariance.

Spreadsheets include one version for common item linking and another for common person linking (see Bond & Fox, 2015, Chapter 5). Please look at the models carefully, before cutting and pasting your own data – it does require understanding and some care.

# Data files used in the Bond & Fox (3<sup>rd</sup> ed.) examples.

Just the bare data files – no control lines, nothing. You can start from scratch just as we did...you work it out. Bond87.txt Chapter 4 BLOT 5-39 (and for Chapter 5); Chapter 4 PRTIII 41-53 Cain.txt Chapter 6 Going Further CAIN 3-38 Chap7.txt Chapter 7 Piagetian Interview 17-37

We will add more data files from time to time.

### Useful web links:

The dedicated support site for this book is: www.winsteps.com/bondfox3.htm

Facebook users can join a mutual-help B&F3 Users' Group: https://www.facebook.com/groups/920730424633520/

PROMS has a Facebook page at: https://www.facebook.com/groups/143303745724306/

To buy the full WINSTEPS version, go to: www.winsteps.com .

The *Journal of Applied Measurement* - most authoritative journal for Rasch research. <u>http://www.jampress.org/</u>

The complete set of the earlier Journal of Outcome Measurement, also founded by Richard Smith, is now available for free download as PDFs on that site.

*Rasch Measurement Transactions* - research notes and reviews. Publication of the Rasch Measurement SIG, AERA. <u>http://www.rasch.org/rmt/index.htm</u>

Rasch Measurement Special Interest Group website: www.raschsig.org

To join the Rasch discussion LISTSERV, mailinglist.acer.edu.au/mailman/listinfo/rasch