

Multi-Level Models - Day 1

Homework

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Assigned: Thursday, June 2, 2009

1. Load the dataset `PPMD_summary_day1.dta`. You can do this from Stata using the command:

```
use http://www.kenbenoit.net/courses/mlm/PPMD\_summary\_day1.dta
```

- (a) Examine the different levels in the dataset. What are the level 1 variables, and at what level do they vary? What are the level 2 variables, and at what levels do these vary? Note that there are different possible methods of interpreting the level 2 variation in this context.
 - (b) Reshape the data so that the `Dimension` variable is in wide format. Why did numbers get assigned to the new variables names and where did these numbers come from?
 - (c) Now reload the dataset so that it is in its original long format. Reshape it so that the `Scale` variable is in wide format. Plot the relationship, for all cases, between the two scales (Position and Importance).
2. Load the Wright peak flow dataset, using the command

```
use http://www.stata-press.com/data/mlmus2/pefr, clear
```

- (a) Reshape this dataset into long format so that occasion becomes a variable rather than a column qualifier.
- (b) Now reshape the data so that the type of measure (`wp` versus `wm`) also becomes a variable. Hint: you will need to rename these two wide variables before you can reshape them.
- (c) Why might we want the data in this format?