

Check for over-dispersion

In some situations, the actual level-1 variance may be larger than that assumed (over-dispersion) or smaller than that assumed (under-dispersion). For example, if undetected clustering exists within level-1 units or if the level-1 model is under-specified, extra-binomial or extra-Poisson dispersion may arise. This problem can be handled in a variety of ways; HGLM allows estimation of a scalar variance so that the level-1 variance will be $\sigma^2 w_{ij}$.

To check for over-dispersion, check the radio button next to the **Over dispersion** option on the **Basic Model Specifications - HLM2** dialog box, which is accessed by clicking the **Basic Settings** option from the main WHLM window. The **Over dispersion** option is only available for some of the 2- and 3-level HGLM models.

Basic Model Specifications - HLM2

Distribution of Outcome Variable

Normal (Continuous)

Bernoulli (0 or 1)

Poisson (constant exposure)

Binomial (number of trials) None ▾

Poisson (variable exposure)

Multinomial Number of categories

Ordinal

Over dispersion

Title

Output file name

Graph file name