



OLS level-1 coefficients were computed for only x out of y units...

The message

“OLS level-1 coefficients were computed for only x of y units that had sufficient data for estimation”

appears in the output file in the section where the OLS coefficients and starting values are given. It may also appear at the tables containing reliabilities, and at the tables with the final fixed and random effects. In all cases it is relevant only for the section of the output where the message is printed.

Note that when it appears at the final tables, it affects the chi-square values printed in these tables and generalization on the basis of these chi-squares are inadvisable, especially if a sizable proportion of the units is excluded during the chi-square calculations.

The usual cause of this message is a lack of variability within higher level units. For example, consider level-2 model with schools as the level-2 units and students as the level-1 units and a variable indicating gender of a student is used as predictor. If, for a given school, all students are of the same gender this may cause the problem. The following error message may also subsequently appear.

“There is a problem in the fixed portion of the model. A near singularity is likely. Possible sources are a collinearity or multicollinearity among the predictors. We suggest that you examine a correlation matrix among the fixed effect predictors”

This error message indicates that there are some of the fixed effects that have essentially the same relationship with the outcome variable. Examination of variability of level-1 predictor values by level-2 ID is advised, along with comparison of the actual values over predictors. A level-1 predictor with no variability whose values are multiples or close to multiple the values of another will also cause this problem.