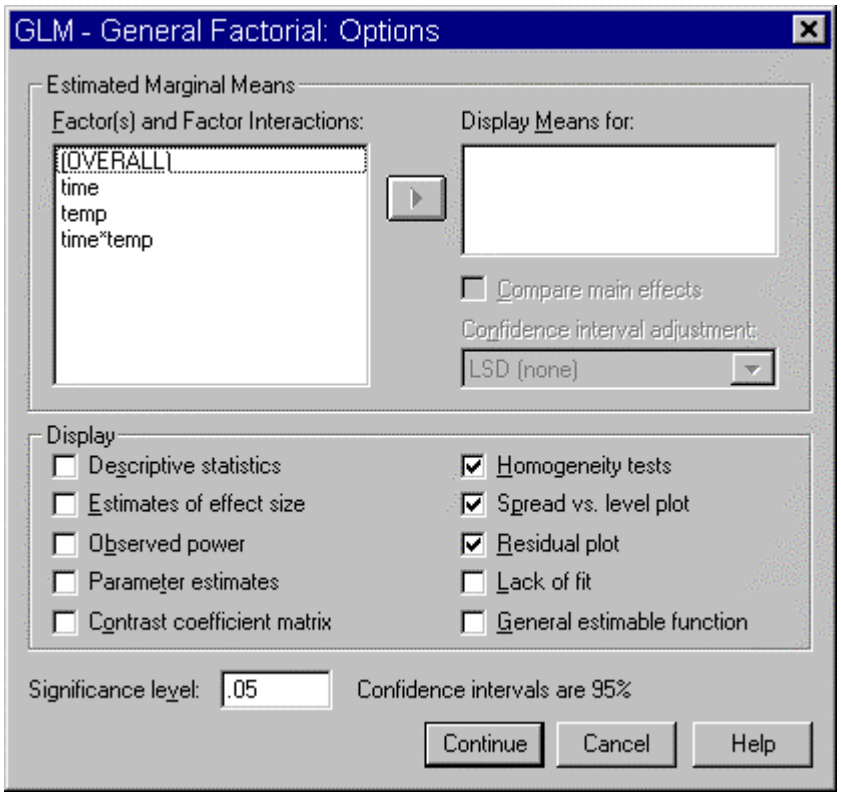
CAKE-BAKING EXPERIMENT

11. Model Checking with SPSS

The test procedures of ANOVA described in the previous sections are valid only if it is assumed that all taste scores are independent of one another, the dependent variable is normally distributed and that variances are equal for all treatment groups.

Analysis of variance is robust to departures from normality, although the data should be symmetric. To check the above assumptions, you can use homogeneity of variance tests and spread-versus-level plots. You can also examine the residuals and residual plots. All the options are available from the *GM-General Factorial…*dialog box when you click on *Options* tab.



Selecting the *Homogeneity tests* allows you to calculate the Levene statistic to test for the equality of group variances. This test is not dependent on the assumption of normality. The spread versus level plots can be used to determine whether the assumption of equal variances might be violated.