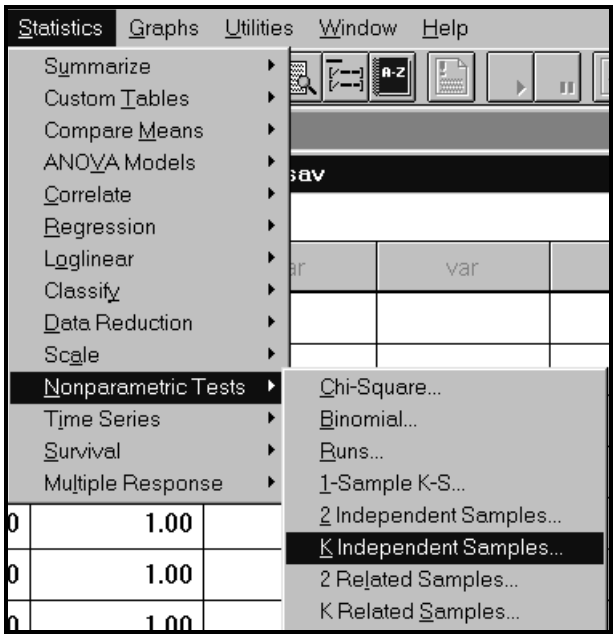
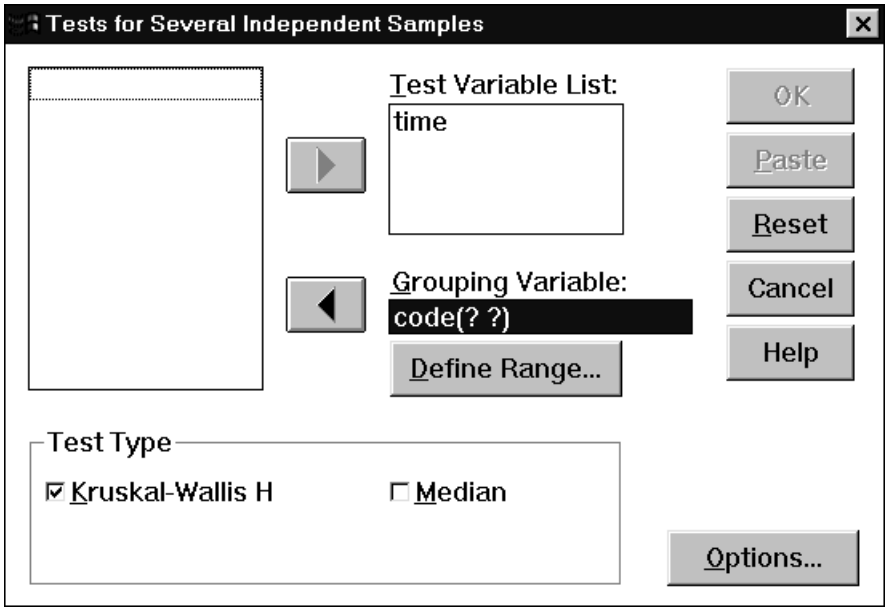
12. Using Nonparametric Methods

The F-test presented in Section 6 has the underlying assumptions of normality and equal variances. However, the graphical displays of the data in Section 3 indicate that the assumptions might be violated. Moreover, the data provided consist of a relatively small number of observations, ten in each group. Under these circumstances, the Kruskal-Wallis test provides a very good alternative to the F-test.

The Kruskal-Wallis one-way ANOVA can be found in the *K Independent Samples…* item of the *Nonparametric Tests* menu.

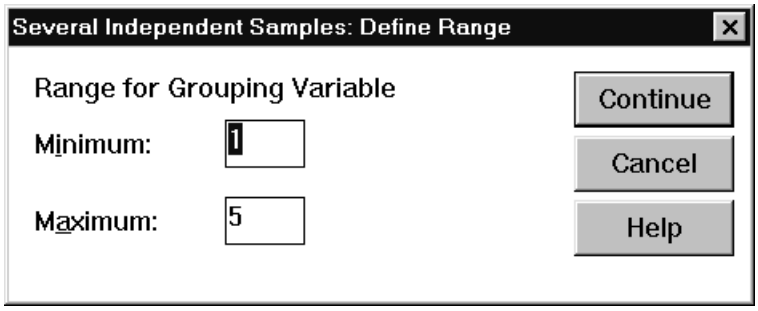


The following *Tests for Several Independent Samples* dialog box is displayed.



Click on the variable *time* and then on the upper right arrow to transfer it to *Test Variable List* box. Then click on the *code* variable and then on the lower right arrow to transfer it to the *Grouping Variable* box. Make sure that the Kruskal-Wallis H test box is checked.

Click on the *Define Range* box and type 1 into *Minimum* box and 5 into the *Maximum* box. Click on *Continue*.



The Kruskal-Wallis output is displayed in **Section 8**.