FAILURE TIMES OF BEARINGS

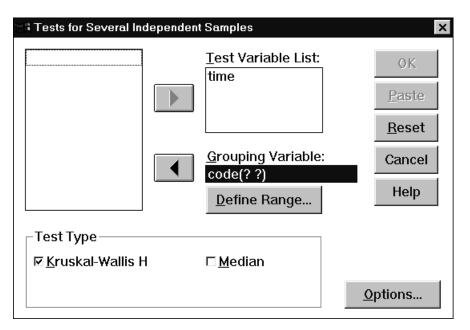
12. Using Nonparametric Methods

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.

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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*.

Several Indepe	×	
Range for G	rouping Variable	Continue
M <u>i</u> nimum:	1	Cancel
M <u>a</u> ximum:	5	Help

The Kruskal-Wallis output is displayed in Section 8.