The contrast coded variables are computed only for the purpose of the analysis and are then discarded. If you want to use these variables in other analysis types, you will need to manually create contrast coded variables within SPSS and save them with the analysis file. The output contains cross tables between the original variables and the recoded variables so you can check the recording has been done to your specifications and expectations.

Dummy Coding

Using dummy coded variables in linear regression is useful to compare each group against a reference group. For example, compare average achievement of boys to that of the girls; compare average achievement between each category of books in the home to the achievement of those with no books; etc. The IDB Analyzer allows you to choose the reference category, or the group against you will compare each of the other groups.

The IDB Analyzer names the dummy coded variables using the name of the original variable, and adding the suffix '_D#' to indicate the comparison group used to create the variable, where # is the sequential number of each category. If you dummy code the variable ITSEX, which has 2 categories (1 for Females and 2 for Males), and you specify 1 as the reference category, it will create the variable ITSEX_D2 which is coded 1 for males, and zero otherwise. If you dummy code the variable ITBOOK, which has 3 categories (1 for "no books", 2 for "some books", and 3 for "lots of books"), and you specify 3 as the reference category, it will create the variables ITBOOK_D1 (coded 1 for those with "no books", and zero otherwise) and ITBOOK_D2 (coded 1 for those with "some books", and zero otherwise).

Cases with the categorical variable coded as missing are excluded from the analysis. Check the section "Check Coding of Coded Variables" in the SPSS output window to verify proper coding of the categorical variable has been achieved.

When a dummy coded variable is used in a regression, the intercept or constant is the mean of the reference group (first category), and the slope or regression coefficient is the difference between the mean of the reference group and the group identified (coded 1) with the dummy coded variable. Since the regression coefficients are presented with a standard error and a t value, these can be used to test whether a difference between means is statistically significant.

Effect Coding

Effect coding is useful to compare groups against the overall mean of different groups. For example, compare average achievement between each of the categories defined by number of books in the home with the mean of the groups means based on this variable. Effect coded variables are created by assigning -1, 0 or +1 to cases according to their group membership. There can be as many as $(k–1)$ effect coded variables, k being the number of categories.

The IDB Analyzer allows you to choose the reference category for the effect coding. This corresponds to the group that will be assigned a value of "-1" for each of the effect coded variables. When effect coded variables are used in regression, regression coefficients will be computed for all but the reference category. The coefficient for the reference category will be the sum of the coefficients for all the categories multiplied by minus 1.

The IDB Analyzer names the effect coded variables using the name of the original variable, and adding the suffix '_E#' to indicate the comparison group used to create the variable, where # is the sequential number of each category. Effect coding is most useful when working with variables that have 3 or more categories.

If you effect code the variable ITBOOK, which has 3 categories (1 for "no books", 2 for "some books", and 3 for "lots of books"), and you specify 3 as the reference category, it will create the