

Independent Variables	<p>This is the list of analysis variables used as predictors in the linear regression model. The independent variables can be classified as categorical, continuous or plausible values. Variables classified as categorical will be either dummy or effect contrast coded. Variables classified as continuous will be entered in the equation without further recoding. You can enter any combination of categorical or continuous variables.</p> <p>For each variable classified as categorical you will need to enter the number of categories and the reference category. Reference categories are selected by sort order of the values for the variable. The program will automatically create dummy or effect coded variables for each of the non-reference categories. It will use the original variable name, plus a “D” or “E” followed by the category represented by the variable. For example, if we specify to dummy code variable ASBG01, with 2 categories, and use the 1st category as the reference category, it will create the following variable ASBG01_D2 and use this in the analysis. Please note that ANY case with a missing value on any variable classified as categorical will be deleted from the analysis. If you want to include these cases in the analysis you will need to recode the missing values to non-missing values.</p> <p>As continuous variables you can choose any variable in the files. While plausible values are treated as continuous variables, they have to be entered in a separate window.</p>
Dependent Variable	The dependent variable to use in the analysis. This can be a continuous variable, or a plausible value.
Weight Variable	The sampling weight that will be used in the analysis. The IDB Analyzer automatically selects the appropriate weight and replication variables for the analysis.

Please note that when selecting “Use PVs” with linear regression, you MUST select at least one set of plausible values, either as a dependent or independent variable. You can also select plausible values for both: dependent and independent variable. If you do not select a set of plausible values for the analysis, the program will not let you continue. You can select one or more plausible values as independent variable.

As an example, we will compute a linear regression equation predicting reading proficiency as a function of gender (ASBG01), and how confident they are in their reading (ASBGSCR). The variable ASBG01 has 2 categories, 1 for girls and 2 for boys, and it will be dummy coded, using the 1st category as the reference category. The resulting linear regression coefficient will tell us the difference between males and females in reading, after accounting for their confidence in reading.

The data will be read from the data file **Merged_PIRLS_Data.sav** and the standard errors will be computed based on replicate weights and the plausible values.

The steps in the IDB Analyzer are as follows:

1. Open the Analysis Module of the IDB Analyzer (Start → All Programs → IEA → IDBAnalyzerV3 → IDBAnalyzer).