

variables ITBOOK_E1 (coded 1 for those with “no books”, zero for those with “some book” and -1 for those with “lots of books”) and ITBOOK_E2 (coded zero for those with “no books” coded 1 for those with “some books” and -1 for those with “lots of books”). As you see, those with “lots of books” are coded -1 in both effect coded variables.

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 an effect coded variable is used in a regression, the intercept or constant is the mean of the group means, and the slope or regression coefficients are the difference between the mean of the group means, and the group represented by the effect 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.

Other Types of Coding

While the linear regression module of the IDB Analyzer can only create dummy or effect coded variables, you can always create additional contrast coded variables and use in the analysis. If you are not familiar with the use of contrast coded variables in regression, we suggest you become familiar with the use of these variables before using them.

Appendix D: Working with TALIS Data from across ISCED Levels

In 2013, TALIS administered the instruments to several ISCED levels. The IDB Analyzer is currently not capable of merging TALIS data from across ISCED levels. To create a dataset from multiple ISCED levels, you will need to follow these steps:

1. Create the corresponding dataset for each ISCED level using the Merge Module. You should save these datasets using a unique name for each of them.
2. Append the datasets from the different ISCED levels with the ADD FILES command using SPSS syntax. When using the SPSS menus, use the MERGE FILES -> ADD CASES option within the DATA menu.
3. Save the combined dataset with a new name.
4. Open the Analysis Module of the IDB Analyzer and select the file that contains the combined datasets.
5. Under Analysis Type, select the option: 'TALIS 2013 Multiple Level/Population'. This will force the use of IDCNTPOP as the grouping variable which will produce results by ISCED level within country.

Appendix E: Calculating Standard Errors in TIMSS and PIRLS

Since the inception of TIMSS and PIRLS, the sampling variance has been computed using what is described as the “shortcut” method. As of 2016, TIMSS and PIRLS will be using the full method for computing the sampling variances and the IDB Analyzer will be computing these consistent with how the study computes these variances.

In the case of TIMSS and PIRLS, when using the full method for computing the sampling variance, we assume there are two clusters within each of 75 strata. For each stratum, we create 2 sets of replicate weights: the first set doubles the contribution of the first cluster, and zeroes out the contribution of the second cluster. The second set does the reverse: it zeroes out the contribution of the first cluster, and doubles the contribution of the second cluster. The sampling