EduStat Software

Sampling Version

EduStat is a data analysis software adapted to support the implementation of evaluations projects, surveys or research in education. Its users are especially those who use opinions collection, measurement of attitude, estimation of knowledge or appreciation of the performance in order to evaluate learning. This software, available in several versions, assists the staff involved in evaluation activities. We present the "Sampling" version of the software; this version includes the options in order to select samples.

A sample selection process includes several steps.

Creating or opening the database

To be able to select a sample using EduStat, it is necessary to have a database that contains the variables needed to achieve the desired sampling design. This database should include the variables necessary to achieve the operations associated to the process.

Setting the frame

The current database may contain records not associated with the desired sampling plan. It will be necessary to select the records that will be used to perform the tasks associated with the desired sample. This is what we design as the "sampling database".

Definition of the target population

It is possible to exclude or include a priori some elements of the frame before sampling process. After the completion of this transaction, we will have the "target population", in other words the records that will be used for selection.

Choice of sampling plan

It is now possible to set the sampling plan according to the proposed assessment. The software offers the possibility to use several types of design. We must then provide the sample size to be selected. It is possible to opt for a "weighted" sampling design. We may wish to consider stratification variables to be used in the process.

Sample Selection

After performing the operations described above, it is now possible to select the sample according to the parameters of the desired sampling plan. To be able to resume the sample selection, if necessary, we have to provide to the software a code that will permit to select again the same sample.

Management of the sampling plan

Four activities can be identified here:

- *Indication of replacements* – Sometimes some elements that are part of the selected sample cannot participate in the current study. We have to be able to make replacement using the same rules utilized in the selected plan.

- *Registration of participation* – It is necessary to mark participation in the ongoing evaluation.

- *Weight calculation* – If the sampling plan provided for the use of a weight associated to each record, we have to calculate these values with the help of this software. Weight can be calculated relative to the "target population" or from the "sampling database".

- *Reporting* – Several types of reports can be generated by the software. Here are the forms of planned reports: various lists, tables on stratification, and statistics on the sample. Reports can be produced in three formats: text, Word, Excel.

EduStat software is used since several years to realize national and international evaluation mainly in education. In addition to the evaluation copy, four software

versions allow to meet the needs of various officials in education for doing different works in evaluation activities:

- a version for preparing *items banks* and their use;

- a version for selecting *samples*;

- a version for running *statistical compilations*;

- a full version including all *data processing* options.

Each of the complementary versions is designed for staff performing specific activities in the development and administration of an evaluation.

After testing the operations of this software using the evaluation version, it will be possible to retain the more adapted version and to obtain a file that will customize the software accordingly.

EduStat software is developed by the Canadian company Micro Centre Pythagore. This firm is associated, since many years, to the realization of evaluation projects in education; EduStat is adapted to execute technical tasks involving the data entry, to prepare databases, to select samples, and to accomplish the quality control on assessment procedures and on the collected data. This software can process information and produced a series of statistical compilations.

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