

Services

Sampling

We use a sample in order to select a limited number of individuals from a population to study certain characteristics in order to attribute to the total population the features found in this small group of individuals. It is important that a sample be the "representation" of the population it represents. Also, to be able to generalize to the population the results obtained by students as part of a sample requires that the selection was made randomly. Statistical formulas used to determine the sample size.

EduStat software includes a menu with the options required to select samples based on several designs that meet different situations. It is also possible to manage a sampling plan with respect to the registration of the participation and the calculation of weights if required. Micro Centre Pythagore can assist those responsible for administering an educational assessment when a selection of samples is required.

Several steps are planned to complete the process planned in the sampling of schools or students part of an evaluation of learning. EduStat software allows to perform the planned activities. Micro Centre Pythagore can accompany them throughout the approach adopted. Here are some steps usually retained in this process.

Understanding of the population

First, we must know as precisely as possible the population to be sampled. Statistical tables showing the population in relation to certain characteristics can be helpful.

Choosing the type of sample

There are many types of sample. We must select one that will be most suitable to the objectives of the evaluation or assessment. Micro Centre Pythagore can provide information to make a wise choice.

Determination of sample size

There are statistical formulas to determine the sample size. EduStat software includes an option to make simulations on the optimal size of a sample with respect to certain requirements related to the level of confidence according to the population size and the type of statistical compilations. We must also consider the logistical and financial capacity of the group concerned by the completion of the proposed evaluation.

Exclusion or a priori choice of elements or individuals

It may be necessary to exclude certain elements of the population or individuals that are not desired or cannot be part of the sample. It will then be the "target population". We must do simulations to see the impact of those choices. It may also happen that the persons in charge of the study decide to include some elements.

Over or under sampling

It is possible that we wish to find in the sample a greater or a lower proportion of individuals belonging to certain subgroups of individuals. In such situation, we will, thereafter, use weighting process at the time of statistical compilations in order to respect the actual distribution of elements or individuals.

Rate of participation

After the administration of the assessment, we must collect the information that will permit to calculate the rate of participation. This information will be useful when producing statistical compilations.

Weighting

Sometimes the sampling procedure provides for the allocation of a weight attached to each student evaluated or each chosen school. This makes it more consistent with reality results. The statistical compilations then take account of this information.

EduStat software can be used to perform work related to the selection of a sample and the different activities to manage the entire process. Micro Centre Pythagore can also accompany officials in charge of an evaluation throughout the process. This support can take the form of training activities using data from the organization concerned and the objectives pursued.

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