

SAMPLE SIZE DETERMINATION USING DECISION TREES

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ABSTRACT

Sample size determination in an investigation is of vital importance, both to characterize the distribution of the variable and to determine the degree of accuracy in the study. The purpose of this paper is to provide help to the investigator in calculating sample size when making a quantitative study (limited to using simple random sampling, single-stage and non-sequential), in which inferential statistical methods are used as means to analysis, such as statistical estimation, hypothesis testing and analysis of experiments that require accurate information on the variables considered, and that is obtained from a representative sample of the respective population. The article presents many equations for determining the sample size, grouped into 6 figures, using the teaching aid of decision trees to facilitate your choice. To illustrate how to use decision trees for choosing the appropriate equation to calculate the sample size, an example of research, that is fully developed, shows from conception of the problem until the final conclusions. On the other hand, the article also presents some theoretical and empirical bases to help the researcher to use the best possible way the different equations to calculate the sample size.

Keywords: Sample Size Calculation, Decision Trees, Educational Statistics.