

STATISTICAL LITERACY ASSESSMENT PROCEDURES. THE EXPERIENCE OF ISTAT IN TUSCANY

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GOALS: One of the missions of Istat, Italian NSI, is to promote statistical literacy both at a national and at a regional level through its territorial offices. In order to optimize activities and the use of resources, the territorial office for Tuscany recently decided to devote specific attention to the topic of assessment. The purpose of this paper is to illustrate the strategies adopted by the office to measure the statistical literacy level of adults, in particular of college students.

METHOD: The assessment involves the three dimensions of statistical literacy: numeracy, communicating, discovering the use of statistics. The process is based on the submission of a short and friendly online questionnaire (QValStat), structured according to the most recent international literature on the subject. Twelve close ended questions composed the questionnaire, each one with three possible answers: one correct answer [score=1]; two wrong answers [score=0]. The median time needed to compile QValStat is about 11 minutes. After filling out the questionnaire, participants receive their scores and their “statistical profile”. The project was carried out thanks to the cooperation of the three universities in Tuscany (Florence, Pisa and Siena). QValStat was submitted for the first time in 2015 to more than 10,000 first-year students of the three universities.

RESULTS: Response rate to QValStat was 32%. Results show that there are difficulties in mastering statistical instruments in terms of numeracy, communicating and using statistics in daily life. In a 0-100 scale the mean score was 63.7 with significant differences between students according to some individual covariates (gender and secondary level degree).

IMPLICATION FOR THEORY & PRACTICE: Information feedback from the assessment experience encourages specialists to explore new targets (teachers, civil servants, stakeholders ...) and new territories to investigate how to realize ad hoc strategies to permeate different audiences. The research direction is focused on the continuous improvement of both the assessment methodology and the submission process.

ORIGINALITY & VALUE: Such an experience was realized in Italy for the first time thanks to the activities of Istat in Tuscany. Forthcoming dissemination projects will be addressed on the basis of the results of the assessment, in order to benefit from the combined actions of evaluation and promotion of statistical literacy.

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