

Statistically based model to determine the reliability of teaching performance student surveys in higher education

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Abstract

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There are several indicators which are taken into account when measuring teaching quality and performance in higher education. One of these widely used indicators is the student evaluations. Results from these evaluations are not only used by students themselves to compare different courses and teachers in order to make their choices for enrollment but also by course coordinators or even deans to detect strengths and weakness, for teacher promotion decisions, auditing practices demonstrating institutional performance as well as teacher and degrees accreditation.

At the UPC (Polytechnical University of Catalonia, Spain) one of the means of conducting subjects and teaching performance evaluation is by means of electronic biannual surveys addressed to all students. The aim of this paper is to present the current UPC methodology used to conduct these surveys.

These satisfaction student surveys have experienced several improvements since we have data (year 1995). An important methodological barrier was overcome in 2015 when a model was developed to statistically define the reliability of the surveys results, specially necessary for small sample sizes. The model allows the characterization of surveys results by means of classifying its associated reliability factor as a function of both the number of enrolled student in the course and the number of answered surveys. Besides, the model defines when survey results should not be considered in any teacher evaluation process due to its lack of statistical significance.

This new methodology has been implemented and running for the last 4 academic years with great success. Multiple good practices applied also allow to obtain a very high participation rate reaching almost 44% of global participation.
