

Interuniversity management support for learning verification based on multi-choice quiz-questions

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The assessment of learning both during the course and at the end represents a large and increasingly burdensome part of the overall teaching activity. A computerized evaluation system able to draw on a centralized archive of several thousands of multi-choice questions (MCQs), and equipped with programs for selecting, printing and correcting the tests, could offer a solution, providing rapid objective assessments. The concept has been widely explored in recent years both in Italy and abroad, but with differing modalities, and results were often disappointing. The need to use a truly multiple-choice format (with independent responses - all either True or False - and each with a statistical discriminative efficiency) was probably underestimated, as also the need for a huge archive of MCQs (several thousand, including questions on anatomical images) complete with the data-processing programs that only a centralized system can offer.

The central archive could be updated, revised, and implemented jointly by the peripheral user (compatibly with their experience) so becoming increasingly refined over time. In addition, a technical team could adjust the management programs and, eventually, correct the tests if there are difficulties locally. The system could best be used as a "high-pass filter" of the student's level of preparation, by which students can access a fast oral exam of the traditional type with the aim of improving their score obtained on the test. At the same time, the teacher would avoid being submerged by countless useless and frustrating exams with inevitably negative results.

The MCQs consist of a "text" sentence completed by 5 statements that can be individually and independently either true (T) or false (F), and which must be defined as such by the 5 relative responses. The presence of 5 independent statements (T or F) ensures a more complete evaluation of the topic proposed in each question and, in the test-trial as a whole, a well-balanced mix of true and false statements (and relative responses). For each multiple-choice quiz question used in the degree course, the percentage of correct answers by the students will be indicated, providing continuous feedback for updating the database. It is expected that the optimal size, by the end of the project, will be at least 10,000 MCQs, of varying levels of difficulty.