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Dissemination of confidence-based assessment

A.R. Gardner-Medwin

Department of Physiology, University College London, London WC1E 6BT, UK

Confidence-based assessment, in which a student's rating of his/her confidence in an answer is taken into account in the marking of the answer, has been used for many years at UCL in formative assessments (i.e. during student study) and in the last two years for summative (i.e. formal end-of-year) exams for medical students. The principles are well founded in information theory, and experience in the exams has shown a marked increase in the statistical reliability of the scores for prediction of students' performance on separate sets of questions. In coursework, feedback about errors that occur despite high confidence helps students become aware of the areas and topics where their knowledge is tenuous, while the act of thinking about confidence helps to encourage re-reading of questions, checking of answers and reflection on ways in which different aspects of knowledge may inter-relate. In exams, the greater reliability of the scores arises from reduced weighting given to partial or uncertain knowledge, and consequently reduced variance. This leads to an approximately 2-fold reduction in the number of questions needed in principle for the same degree of reliability of computer-marked tests of the sort we have employed (serving principally to ensure adequate breadth of students' knowledge) and can free resources for more varied and open-ended modes of teaching and assessment.

Funding has been obtained from HEFCE (through its Fund for the Development of Teaching and Learning) for dissemination of confidence-based assessment in other institutions and new fields (within and beyond biomedical sciences). This is intended to achieve more widespread evaluation of the potential benefits and to lead to collaboration in the enhancement of automated assessment and the building of shared resources. Some of the money may be spent in other interested institutions, and a major aim is to develop resources in a way that is well tailored to technical and educational needs of new users. Ease of delivery and choice of required topics, and editability and integration with other teaching styles are all important issues. One dissemination strategy will be to use our own students to contact friends in other institutions, encouraging them to try out materials that will be made generally available. At this initial stage it will be valuable to establish a network of departments and people interested in participation or in generating input to the project about their own constraints, needs and ideas.

Information and relevant publications are available at www.ucl.ac.uk/LAPT.