

List of techniques

Technique	Brief description
Access	The use of technology designed to enable a greater range of students to understand and be able to take part in an assessment
Accuracy of complex inputs	The use of technology to measure the technical accuracy of students' responses, such as in foreign language translation exercises
Adaptive testing	Assessments which deploy algorithms to analyse student responses during the test session and to vary the selection of items presented to the student accordingly
Assessment impacting learning programmes	The use of technology to create dynamic links between the assessment and learning programmes
Assessment on demand	The use of technology to make assessments and tests available to students at a date and time of the student's choice. This technique was also used to refer to assessment systems which gave the teacher or tutor choice over the timing of assessment (ie the timing decision was made as locally as possible.)
Associated services (e.g. plagiarism detection)	The use of technology to provide services allied to assessment and testing; sometimes not available in pre-technology forms
Complex mathematical responses	Analysis of student responses which include mathematical expressions which appear in many forms and which might include algebraic or more complex formula-based expressions
Data mining	The use of technology to support data mining techniques.
Diagrams	The use of technology to enable the presentation of diagrams, graphs and related approaches in assessments, as well as enabling students to manipulate, draw and/or label diagrams by way of response
Expert judgement/support systems	An application that uses a knowledge base of human expertise and algorithms to emulate decisions that would be made by a human.
Extended text	The use of technology to support input and/or scoring of prose responses in excess of 20 words or so.
Feedback	The provision of information and analyses for tutors, teachers and students based on individuals' and groups' performance on tests and assessments
Formative	The provision of information and analyses for students where the primary purpose of this is to inform decisions about next steps in learning
Fuzzy logic/pattern matching	The use of string matching computer techniques to compare students' test responses to predicted and expected answers
Group work	The use of technology to set students group assessments, and to use technology to collect information about the performance of the group and, sometimes, to score individual's contributions to the overall group performance
Higher order skills	The use of technology to assess students higher order skills, including process skills (e.g. problem solving) and behavioural attributes (e.g. persistence and logic)
Interactive skills	The use of technology to assess student's ICT skills
Knowledge	Assessment of domain knowledge, potentially using a variety of item types

List of techniques: continued

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Marking combining human/computer	The use of technology to filter responses which can be automatically marked, presenting to human markers all responses that were not predicted or that cannot be automatically scored for other reasons
Mobile phones	The use of mobile phones to present assessment tasks and/or to collect student responses using the phone as an input device
MUVEs & Virtual Worlds	The use of Multiple User Virtual Environments or other types of Virtual World to conduct assessments. The virtual worlds could be used as a vehicle for presenting a range of types of assessment, including those which are designed to assess performance in using virtual world functionality and interactivity
New approaches to student performance	The use of technology to design and present measurements of student performance not undertaken in paper-based or more traditional assessment. These innovations could be relatively technically and psychometrically straightforward (eg using video to present assessment stimulus material) or significantly more sophisticated (use of technology to assess group work, for example)
PDA's	The use of PDA's to present assessment tasks and/or to collect student responses using the PDA as an input device. In some instances, the PDA might be used as the tutor's assessment handbook, reminding the tutor of the assessment rubrics and requirements
Peer assessment	The use of technology to collect peer-to-peer assessment judgements, possibly including the use of technology to present the assessment evidence
Practical skills	The use of technology to assess motor skills, physical skills, performance evidence and other types of practical skills
Process	The use of technology to collect evidence of student's process performances, such as methods used to solve problems
Psychometric theory	The design of new and adaptive forms of performance measurement, leading to advances in psychometric theory not based on linear, item-based and paper-based forms of testing
Short free text	The use of technology to capture and score students' short free text responses to test items.
Speed	The assessment of time-based aspects of students' performance, including the speed of their responses
Training	The use of technology to derive training-needs analysis, for instance by evaluating gaps and weaknesses in students' performance.
Voice/performance skills	The use of technology to capture voice (i.e. spoken word) evidence of performance
Web2 – flickr, wikis	The use of social technologies as a platform for presenting assessment tasks and/or capturing evidence of student performance
VLEs	The use of Virtual Learning Environments to launch assessments of any type