# E-assessment and e-assessment tools

E-assessment cannot be separated from assessment, and there are many types of assessment and many methods of doing it. This is not the place to review assessment and e-assessment, and the following JISC publications provide good introductions:

* Effective assessment in a digital age <http://www.jisc.ac.uk/publications/programmerelated/2010/digiassess.aspx> (2010)
* Effective practice with e-assessment <http://www.jisc.ac.uk/publications/programmerelated/2007/pub_eassesspracticeguide.aspx> (2007)

Assessment takes many forms from informal assessment during class time through more formal diagnostic, ipsative, formative assessment to summative assessment. Below we look at a number of tools with very different affordances that support different forms of assessment and marking and feedback. The example tools have been selected as either being already available at the University of Bolton, or easily integrated with Moodle or freestanding. They are not recommendations of particular pieces of software, but are illustrative of very different approaches to assessment, marking and feedback. As such they are not alternatives, but complementary.

It is worth looking briefly at some of the issues and the mapping these to the example tools:

* **Informal assessment during classes** – there are many ways to get informal feedback during class. A couple of examples are the use of “clickers” to answer questions during sessions, which can either use specialist clickers or apps which will run on almost any device (smartphone, tablet, laptop). The questions can either be defined in advance, or with some tools created on the fly. Twitter can also be used to get comments and questions from students which can be responded to as they come up. Example tools:
  + **Socrative**
  + **Twitter**
* **Formative quizzes –** simple quizzes can take many forms and can help students diagnostically or formatively as well. For instance, multiple choice tests with appropriate questions and well thought through distractors can go beyond simple knowing of facts to understanding and even the ability to apply understanding (although that is easier in some disciplines than others). Example tools:
  + **Socrative**
  + **Moodle quizzes**
* **Peer assessment –** enabling students to assess each other’s work requires the students to engage deeply with the material to ensure that they are marking appropriately. They also have to engage with the marking criteria. It can be a very powerful learning mechanism. Example tools
  + **Turnitin Peermark**
* **On-screen marking -**  with electronic submission of assessments it becomes possible to mark the submissions on the screen. Note that these need not be text based, but can include images, audio, video and multimedia. There are tools that will allow the submission to marked and annotated online including against rubrics with text, audio or video feedback. Other advantages of on-screen marking include the ability to use a database of stored comments, which can then be more detailed than markers typically have time to write including information on what the issue is, what needs to be done to address it and pointers to additional help. Example tools
  + **Tunitin Grademark**
  + **Screencast-o-matic**
* **Group work –** This is slightly different to the other areas, but there are tools which allow for group members to explain the relative effort of the different members of the group. In this way it becomes possible to assign proportions of the mark to the different members of the group depending on the effort involved. Examples include:
  + **WebPA**

| Tool | Brief description and URL | Features | Benefits | Supported types | Limitations |
| --- | --- | --- | --- | --- | --- |
| Grademark (Turnitin) | Grademark is designed to support on screen marking of text based or image based assessments. It is integrated with Turnitin’s plagiarism detection system. It allows the marker to annotate the submission with notes which can be typed and stored comments. It also allows marking against a rubric and a single summary audio comment.  <http://turnitin.com/en_us/products/grademark> | * On-screen marking * Database of comments * Rubric marking * Audio feedback (summary only) * Analytic tools available | * Integrated with Turnitin * Integrates with Moodle | File types  MS Word, WordPerfect, PostScript, PDF, HTML, RTF, OpenOffice (ODT), Hangul (HWP) and plain text. | * No support for blind or double marking |
| Moodle quizzes | Natively Moodle supports a wide number of assessment types, many of which support automated feedback both at the individual question level and at the overall “quiz” level. These can be used for diagnostic, formative and summative assessments  <http://www.moodle.org> |  | * Embedded within Moodle * Supports QTI | Question types   * Calculated * Calculated multichoice * Calculated simple * Embedded answers (Cloze) * Essay * Matching * Multiple choice * Numerical * Random short-answer matching * Short answer * True/False | * Does not support all question types |
| PeerMark  (Turnitin) | PeerMark, also from Turnitin is a tool that supports peer assessment of submissions. It allows both named and anonymous marking, and multiple marking.  <http://turnitin.com/en_us/products/peermark> | * Anonymous or not marking * Single or multiple peers * Questions for peers to guide assessment | * Peer assessment * Integrated with Turnitin and hence Moodle * Could be used for anonymous marking | File types  MS Word, WordPerfect, PostScript, PDF, HTML, RTF, OpenOffice (ODT), Hangul (HWP) and plain text. |  |
| Socrative | A software alternative to “clickers” this runs on Android and iOS devices (There are hundreds of similar apps and this is just one example). It allows for quick quizzes during class time to get instant feedback from students in order to check understanding, select what to do next or many other things.  <http://www.socrative.com/> | * Runs on almost any device * Quick and flexible to use * Several question types | * Can be used in class for quick reactions during teaching | n/a | * Does not integrate with Powerpoint for presentation of results * Results sent via email * Requires data or wifi connectivity in teaching space * Requires students to have a device |
| Screencast-o-matic | Screencast-o-matic is not an assessment tool as such, but a tool which enables the user to record messages while simultaneously recording what is happening on (part of) the screen. It can therefore be used for audio feedback with the comments being heard while the relevant part of the submission is on screen. The cursor is highlighted and so can be used to point things out too.  <http://www.screencast-o-matic.com> | * Audio feedback * Video feedback * Overlay over submission | * Works with any file type * See what the marker sees as thy speak comments | Any file type | * Not an assessment tool so other tools needed to record marks, distribute comments etc * A bit clunky |
| Twitter | Useful for getting input during class sessions in the form of comments and questions using an appropriate class hashtag | * Short answers (140 characters) | Able to get instant feedback from students and respond in class time | n/a | * Students need Twitter accounts * May get extraneous input if hashtag not unique * Requires data or wifi connectivity in teaching space * Requires students to have a device |
| WebPA | WebPA can be used to enable students to apportion the marks within a group for group work. It allows students to say how much effort each member of the team has contributed, so that they do not all have to be given each member of the group  <http://webpaproject.lboro.ac.uk/> | * Define criteria for students to use * Supports Lickert scales and per centages | * Encourages students to reflect on their and each other’s contributions | n/a | * No method for handling disputes * Open source with limited support |