Contents

Introduction to E-marking
What is e-marking?
Benefits
Considerations
E-marking: an Overview
Comment and mark-up
Rubric or marking scheme creators
Learning management systems
Special assessment
Criteria for Evaluation
Availability
Ease of use
Assignment types
Criteria-based marking
Feedback
Reporting
UQ Supported E-marking Systems and Tools
Blackboard
Turnitin Grademark
PAF tool

1 Selected E-marking Systems in Detail 5
1 Acrobat X (PDF) 5
1 Annotate (for Word and Excel) 6
1 eMarking Assistant with eRubric Assistant 6
2 iPad and Android Apps 6
2 iSocrates 7
2 Markin 7
2 Mark-Rite – Electronic Objective Skill Competency Exams 8
3 Microsoft Excel 8
3 Microsoft Word 9
3 PRAZE (peer assessment and review) 9
3 ReMarks PDF 9
3 SPARK PLUS (peer and self assessment) 10
3 Web-based peer assessment platforms 10
3 TA Toolbar Essay Grading Software (for Word) 10
3 UQMarkUP 11

4 Summary Table 11


Electronic marking of assessment, or e-marking, can offer quicker, more efficient marking and grading that eliminates or reduces the paper cycle and enables faster feedback for students. However, there are many tools and approaches, ranging from simple desktop solutions to institution-wide systems.

About this Guide

This short guide to some e-marking tools is intended for teachers at The University of Queensland (UQ) interested in knowing more about available e-marking tools. It focuses on UQ supported tools and other freely or readily available tools to help you get started.

Developed by the TEDI Technology Enhanced Learning Group

Writing, editing and document design: Andrei Baltakmens
Research and writing: Mathew Hillier
Graphic design: Tania Ryan
Introduction to E-marking

What is e-marking?

E-marking is marking student assignments electronically, using a personal computer or mobile device (such as a tablet). E-marking is not automated marking, and so work is still assessed and marks and grades assigned by a person.

There are many tasks involved in marking and determining a grade, and an e-marking tool can assist in some or all of these steps:

- collating and storing student assignments
- enabling electronic commenting and mark-up
- providing reusable banks of comments
- calculating weighted and criteria based grades
- returning student assignments, grades and feedback

E-marking tools can be stand-alone software tools or simple plug-ins that enhance the functionality of Microsoft Word or Excel, or integrated with a learning management system (LMS) such as Blackboard.

Benefits

E-marking can speed the mechanical aspects of marking by cutting out some of the processing that has traditionally been done by hand. This is particularly useful as the vast majority of students now prepare assignments on computers.

Banks of comments allow you to reuse frequently used remarks or instructions, particularly corrections for writing style and referencing.

Rubric-based marking, using marking criteria in a predefined matrix, allows you to quickly complete marking sheets, and may enable quick calculation of marks and grades. These sheets may also include personalised comments and feedback.

Electronic storage and distribution of student papers reduces manual handling and the danger of ‘lost’ papers. Students can be quickly notified of results.

Students can potentially receive detailed feedback while their assignments are still fresh in their minds.

Considerations

Before you choose an e-marking tool, you should consider the type of marking you want to carry out, the capabilities of the tool, its limitations and possible benefits or issues. Installing and learning to use any software takes time, and certain tools require a degree of expertise or configuration. Before picking an e-marking tool, consider:

- Assessment type and nature of feedback: What kind of feedback do you need to provide? Is this consistent with your pedagogical aims? Do you need to closely annotate and comment on student work, or will you use a separate marking sheet or rubric (or all of the above)? Do you just need to tally marks and calculate a grade? Are you also considering using verbal feedback (voice recording)? In addition, do you want to collate and report on marks, showing results for the class overall,
for example? Do you need to manage marking for one person or from a number of markers? Will you need to share marked work for moderation?

- Convenience: Is the tool easy to install? How much setup is required? Is the interface clear and easy to use? Does it require additional steps to make the marking process work (for example, would you have to transfer or print out comments to distribute to students)?

- Platform compatibility and formats: Some tools are designed only for Microsoft Windows, or Word files, or to work with Adobe Portable Document Format (PDF). Many tools may have been developed for earlier versions of the current software and may not be updated. What formats will students use to submit work, what platforms do you usually work on, and are these compatible with the assignments students will be expected to submit? Do you intend to work with a desktop or laptop PC, or a tablet (such as an iPad). Do you want to store and access student work on a hosting server, on your local hard-drive, a shared network drive, or in the cloud (using a service such as Dropbox)?

- Security: Will assignments be stored securely with a reliable backup? Without paper assignments and written annotation to fall back on, is there a policy for dealing with lost or corrupted data, in the unlikely event this occurs?

E-marking: an Overview

Although there are many e-marking tools, they tend to fall within a set of recognisable types. Understanding the kind of solution you need can help you make your choice.

Comment and mark-up

These e-marking tools use mark-up features to enable assessors to comment or make corrections in situ on submitted work. A number of tools use the track changes and commenting tools in Word or Adobe Acrobat and add functionality through toolbars that enable you to insert and manage comments more quickly.

A common feature of these tools is the ability to add and manage your own ‘bank’ of comments, which reduces the need for the repetitive typing of common feedback (such as correcting reference style or sentence construction errors).

They are generally easy to install. However, many of them do not assign marks or make grade calculations.

These and similar tools are also available as apps for tablets.

Rubric or marking scheme creators

These are essentially automatic forms that allow you to follow a marking scheme or rubric, filling in comments and marks related to various criteria. Many will then automatically calculate a grade and generate a feedback form for the student.

Setting up the rubric requires some work beforehand. You may also have to use another method to provide direct feedback on student’s work for specific issues.

Learning management systems

Learning management systems, such as Blackboard or Moodle, also have modules that allow teachers to set up and collect assignments, mark and store grades online, create tests and quizzes, and so on.
These tools are centrally hosted and configured. See the section on UQ Supported E-marking Systems and Tools later in this guide for more information.

For more information about assessing learning using Blackboard at UQ, see www.elearning.uq.edu.au/content/assess-learning

Special assessment

There are also software applications designed for unique forms of assessment, such as self and peer assessment or the Objective Structured Clinical Exam (OSCE), also known as the Objective Skills Competency Exam. Some of these applications are included later in this guide.

Criteria for Evaluation

The tools listed in the following section were evaluated against the following criteria. The primary considerations were ease of use and accessibility.

NOTE: A search of the Web will reveal a number of similar systems, and new apps are being added all the time. Some available e-marking systems are not included in this list because they are too complicated to install, require special knowledge or skills to set up, are based on old or incompatible software, were designed for specific institutions, are no longer supported or updated, or a combination of the above.

Availability

How easy is the tool to obtain and is it free or a commercial product requiring payment? Is the tool supported and likely to be updated?

Ease of use

This can often be subjective, as it depends on your familiarity with computers and software. How easy is the tool to install and set up? Is it ready to go immediately, or does it require preparation? How clear and useable are toolbars, dialogs and other parts of the interface? Does the system enhance or speed the marking process (with reusable comment banks, for example)?

Assignment types

What kinds of assignments can students submit? For example, is the tool intended for marking written work, such as essays and reports that will be submitted as Word documents or PDF? Can the tool work for audio-visual projects or presentations?

Criteria-based marking

Does the tool support criteria-based marking; that is, rubrics or marking schemes? Will it automatically enter, weigh and calculate final grades based on defined criteria or other rules?

Feedback

What kinds of feedback does the tool allow: written comments, customised comments, marks, audio, highlighting or drawing, spelling and grammar corrections, and so on. Does the tool generate a grade sheet or annotate the text itself?

Reporting

Does the tool automate the return of grades and in what format? Does it allow you to manage marks and grades, and create class or course summaries?
UQ Supported E-marking Systems and Tools

Blackboard

Grade Centre: stores the grades for assessment items you have set in Blackboard for each student in your course. You can add additional columns to the Grade Centre for grades for assessment items that are not submitted electronically (such as an in-class presentation or an artefact submitted to you directly). See www.elearning.uq.edu.au/content/grade-centre for more information on using the Grade Centre.

Rubrics: these must be configured by the instructor and can be set up in a variety of ways and used with several assessment types, such assignments, blogs, journals, wikis and discussion forums (but not peer and self assessment items). Rubrics can include multiple criteria, multiple performance levels and weighting of the combination of these by percentages, points or ranges. Rubrics can be used for formative feedback or the final grade can be calculated automatically based on the rubric (or both). The final grade can be overridden by the instructor. See www.elearning.uq.edu.au/content/rubric for further information on using rubrics in Blackboard.

Peer and self assessment: these allow students to self assess or assess the work of other students, depending on how the instructor configures this tool. Marks are assigned online. Note: once all students are assigned for peer assessment and marking has begun, no further additions or changes can be made to the allocation. See www.elearning.uq.edu.au/content/self-and-peer-assessment-tool for further information on this tool.

An instructor can assign numeric grades manually to an assessment item. Numeric grades can also be entered to override grades from peer assessment and rubrics. You can apply numeric grades to assignments, blogs, journals, discussion forum posts, wikis and tests (quizzes).

An instructor can also add summary comments for an assessment item manually (note these are not in situ mark-ups on the student work itself). You can apply manual comments to assignments, blogs, journals, discussion forum posts, wikis and tests (quizzes).

Most marking with Grade Centre tools must be done online and so requires a working Internet connection. Student assessment files can be downloaded for commenting and annotation, but this currently requires you to return these marked-up files one-by-one to students. A number of desktop tools to aid in mark-up, commenting, assigning and tracking grades are outlined in this guide.

More information about using Blackboard assessment tools at UQ is available from the A to Z tools guide at www.elearning.uq.edu.au/content/tools-a-z-guide.

Turnitin Grademark

Many instructors are familiar with the pre-emptive text matching capabilities of Turnitin, which are useful in detecting potential plagiarism; however, Turnitin it also has e-marking capabilities. These include numeric grades, rubrics, recorded audio comments, a customisable drag-and-drop comment label library and an extended text comments box.

Grademark rubrics have different capabilities from the rubrics in Blackboard and so are worth investigating.

Marking can be carried out online using the Turnitin Grademark web interface or with an iPad app that allows for off-line marking.

It is best to use Turnitin in conjunction with Blackboard by setting up a ‘Turnitin assignment’ in your
Blackboard course. This allows a fully electronic workflow for instructors and is easier to use for students, as they submit items to the one interface and receive their feedback electronically. Grades are also automatically transferred from Turnitin to the Blackboard Grade Centre, which provides the instructor with a single repository of the grades assigned to each student across all assessment items in the course.

Extensive advice, examples and step-by-step instructions for using Turnitin and Grademark at UQ are available from the UQ e-learning web site at www.elearning.uq.edu.au/content/turnitin.

**PAF tool**

In use in a number of courses at The University of Queensland, PAF tool is a online tool adapted from WebPA (see Web-based peer assessment platforms, later in this guide) that is used for peer assessment of the individual contributions of team members.

PAF tool enables student team members to evaluate individual contributions to teamwork for a number of instructor-specified criteria, from which a Peer Assessment Factor (PAF) is calculated. This can be used to scale team marks for the individual, enhancing the fair recognition of individual performances in the team and helping students to develop the skills to assess themselves and others.

PAF tool integrates with Blackboard and Blackboard Groups. PAF tool records comments, and instructors can moderate individual and group PAF scores online. Instructors can reuse peer assessment criteria.

Interested UQ staff should contact their Faculty Educational Designer or Dr Alan Cody (CEIT): a.cody@uq.edu.au.

**Selected E-marking Systems in Detail**

For a quick comparison of the systems listed here, see the summary tables at the end of this guide.

Prices are in Australian dollars, unless specified otherwise.

**Acrobat X (PDF)**

Both the Windows and Mac OS X versions are free to UQ staff (on-campus site licence) from Information Technology Services (ITS) for $100 for a ‘work-at-home’ licence as a part of the Adobe Master collection.

The main use for Adobe Acrobat Pro in marking is to place comments onto the student work. Adobe Acrobat Pro has an extensive range of mark-up and commenting tools, including audio comments, sticky notes, highlighters and limited text editing. These capabilities make it well suited to providing feedback on written assessments, such as essays and reports, as well as annotating computer drawn or scanned diagrams and sketches. Comments can be returned to students as PDF files and can be read across most platforms using various freely available PDF reader applications.

It requires that students submit a PDF, but as many free PDF creators are available that can convert various file formats to PDF, and many applications can print or save to PDF, this should not present a substantial barrier to use.

Acrobat text corrections and mark-up are clear and easier to follow when compared to ‘tracked changes’ in Word. Acrobat also has better support for multiple users and reviewers.

However, there is no way to store and reuse comments in Acrobat, or calculate a final grade automatically.
Annotate (for Word and Excel)

Available in both Windows and Mac OS X versions; Pro version (Word), US$45; free trial version; from www.11trees.com

Easy to install, though some knowledge of Word toolbars and macros is helpful. There is also a version for marking in Microsoft Excel.

This tool is best suited to written assessments, such as essays and reports, where the marking criteria focus on language and argument structure. Supplied comments include links to relevant resources on language, structure, grammar and argument. The comment library is editable, and you can customise and add your own comments. A version for writing in law is also available.

Annotate is essentially a toolbar for Microsoft Word that uses of Word’s comment tool (in track changes) to provide a large collection of comments that you can insert in the student’s submitted file using a series of menus.

Apart from commenting, there are no other features such as highlighting, voice annotations, grade calculation or managing assignments.

eMarking Assistant with eRubric Assistant

Works with the full versions of Microsoft Word for Windows 2010 and earlier; US$20 for 1-year license, 30-day trial available; from www.emarkingassistant.com

NOTE: The eRubric Assistant component included with eMarking Assistant is available separately for free and also works on Word for Mac OS X.

Similar to Annotate, eMarking Assistant automates and repurposes the Word comment tool. In addition to automated comments and a comment bank, it supports importing and exporting comments to allow sharing comment banks as Word documents. This also allows editing comments independently and including graphics, links and tables within comments. You can create customisable marking rubrics with weighted criteria and standards, and automatic tallying of grades. Audio comments can also be used, with some configuration.

The software is easy to install, but the toolbar is fiddly and somewhat difficult to use. For example, configuring rubrics is complicated and requires special function keys and some awareness of field coding. Comments are listed as abbreviated codes or short phrases, which may be difficult to remember and select, particularly when comment collections become large.

The tool can search for selected words or phrases on the Web, which is useful for detecting potential plagiarism (this is a Google search and does not conduct pre-emptive matching in the same way as systems like Turnitin or SafeAssign), or highlight phrases throughout the document if the student repeats the same error.

There are no recent updates for the latest versions of Word. eMarking Assistant is not supported on Mac OS X.

iPad and Android Apps

There are a number of apps available from the Apple App Store and Google Play (formerly Android Market) that can be used for e-marking.

Unless you are using a wireless keyboard, iPads and similar tablets are slower to type on, but enable
the use of styluses for drawing on screen.

- **Essay Grader**: An app for creating a “feedback document” or comment sheet for student essays. Comments can be unique or selected from pre-written banks of comments (with more comments available as in app purchases). You can import student lists and export comment banks and student feedback (requires some spreadsheet knowledge). There is also a desktop version for Mac, available from the App Store (Mac OS 10.6 and later).

- **iAnnotate**: A leading PDF annotation and markup tool. Enables comments, text corrections, highlighting, drawing, stamps and icons, images, and audio comments. Can search full text across a collection of documents. Not specifically designed for e-marking, so no comment banks or marking schemes. Versions are available for iOS and Android.

- **Skitch**: Mark up images, maps, screen captures, photos and PDFs by drawing, lines, arrows, highlighting and short text (on Mac). It requires Evernote to work. Versions for iOS and Android, along with Windows desktop, Windows 8 touch, and Mac OS X.

- **Others**: Gradebook Pro (iPad only) is a classroom management tool for recording attendance, in-class performance, grades and so on. There are a number of other general mark-up and commenting apps, like mMarkup, usually listed in the ‘Productivity’ category.

**iSocrates**

For Mac OS X and Windows; US$99; from [www.isocrates.org/](http://www.isocrates.org/)

iSocrates is a form generator that lets you create a marking form or sheet (rubric) with comments and grades selected from drop-down menus (see also Essay Grader, under iPad and Android Apps, above). It was designed to assess student presentations in class with an inbuilt timer; however, the rubrics and marking sheets can be applied to other assessment tasks.

You can configure a limited set of 25 common feedback comments and evaluate student performance using both number grades and comments. Stored comments added to a student’s mark sheet can be edited on the fly. Note that comments and marks are not placed on the student work itself.

Rubrics can also be exported to share with other users of iSocrates.

iSocrates can use weighted criteria-based marking to calculate a final grade. The system can also produce a list of student grades.

Some setup of moderate complexity is required to create rubrics, weighted marking criteria and comments. Students need to be manually added to the system one by one, but lists of students and grades can be exported. The product website offers a small number of shared rubrics.

**Markin**

Available for Windows only; £25.00; from Creative Technology, [www.cict.co.uk/markin/](http://www.cict.co.uk/markin/)

Markin is a stand-alone application that works in three steps: importing student files to mark, marking and annotating, and exporting marked files (as web pages).

Markin can import a number of text formatted documents, including plain text (.txt), HTML web pages, and word processing files such as Word documents or rich-text format (RTF), while retaining most formatting, including tables and images. It can also extract text from any file, such as a spreadsheet, if the correct filter is present (e.g. if you have Microsoft Office installed, the ‘extract text from any file’ filter can be used); however, all formatting will be lost, so its use for such files is limited.
Markin supports grades, annotations and reusable comments (called snippets). These may require some time to set up and customise.

Marked files are exported to XHTML (web page) for viewing online or locally in a browser by the student. Markin can generate RTF files for word processors if this is required, and these could be converted to PDF with a free PDF creator.

There is also a statistic module for generating data about the usage frequency of particular annotations and word counts; however, it does not generate statistics about assigned grades.

There is a moderate learning curve for the application, and also some work required to import and export marked files. Some knowledge of web servers is required to post exported files online for viewing.

The current version runs on Windows only.

**Mark-Rite – Electronic Objective Skill Competency Exams**


Mark-Rite is a custom, online tool for OCSEs. As a web application, there is no software to download. Mark-Rite works on any web-enabled mobile device (the iPad is recommended). It lets you customise exams, manage students, send email feedback and download exam grades.

The tool is intended to be used by the marker during observation of the student and shortly afterwards to finalise comments. It aims to enable a quick turnaround of feedback to students.

**Microsoft Excel**

Excel workbooks can be used to create electronic marking sheets and rubrics that can be used to mark a variety of other assessment types. The complexity of these depends on your knowledge of Excel, and can range from simple summing sheets, mark sheets or rubrics, to linked comment banks, full course grade calculation, class performance statistics and scripted mark sheet production and bulk printing.

Excel cannot directly mark up student work submitted as Word documents or PDFs.

Examples of Excel-based marking tools include:

- **Electronic Feedback**: free, Excel workbooks and Word templates from [www.ljmu.ac.uk/ITHelp/software/feedback.asp](http://www.ljmu.ac.uk/ITHelp/software/feedback.asp)
- **eMarkbook**: $50, Excel workbook from [www.emarkbook.com](http://www.emarkbook.com)

Most of these examples are usable ‘out of the box’. With some technical expertise, you can modify or create your own marking sheets using these as models. This requires more detailed knowledge of Excel and potentially some programming concepts, depending on how much of the assessment workflow you want to automate.
Microsoft Excel also offers basic annotation (comments) and track changes (show insertion and deletion) for providing comments on assessments that have been submitted as spreadsheets. Providing templates to students with the grade and marking columns already present would facilitate automatic grade calculation.

**Microsoft Word**

Microsoft Word provides annotation tools such as comments in the margins, the ability to show inserted and deleted text (often called ‘track changes’), as well as text highlighting and automatic content insertion (autotext or ‘Quick Parts’ in Word for Windows 2007 and later). This makes Word suitable for directly marking up student work but does not provide automatic calculation of grades.


Quick Parts requires user knowledge and time to set up; however, directly editing the Word document is a viable solution. A simple approach is to create a personal comment bank in a separate document or file, and copy and paste as required. Personalised comments can be inserted into the student’s document using different coloured text or a recognisable convention, such as sharp brackets <like this>.

With the current Word tools, comments can be inserted into the margin with links to the relevant content: select the text and on the **Review** tab of the Ribbon, click **New** in the **Comments** group.

Advanced users can create macros to automate repetitive tasks. Macros are recordings of multi-step processes. These recorded actions can then be activated by clicking an assigned button. More advanced scripted actions are also possible using the VBA programming language, but this requires knowledge of programming concepts.

**CAUTION:** A number of pre-made macros and VBA scripts can be found online, but you should be sure to only download scripts or macros from reliable sources and always scan any files for viruses, as these are essentially small programs that can harbour malicious code.

**PRAZE (peer assessment and review)**

Freely available for use by any Australian tertiary institution. The system requires users to register each semester.

An anonymous peer review and assessment tool from the University of Melbourne. Instructors can use the system to set up an assignment and specify who (students, staff or both) can review and provide feedback on the assignment. Group/self assessment provides the option for students to review the work or performance of their peers or themselves.

Instructors must plan for and set up assignments for use, but there are resources and guides, including step-by-step guides, on the PRAZE support site. Only University of Melbourne users can integrate PRAZE with their Learning Management System.

To set up a hosted account, contact praze-info@unimelb.edu.au. Response times are usually 1–2 business days.

**ReMarks PDF**

Available for Windows, Mac OS X and tablet devices; US$25 per 1-year subscription (site license also available); from [www.remarks.pdf.com](http://www.remarks.pdf.com)
ReMarks PDF is an extensively featured PDF annotation, marking, and assignment management system.

NOTE: ReMarks PDF is currently being trialed at UQ. Follow the link from www.elearning.uq.edu.au/content/remarks-pilot for more information about trialing ReRemarks PDF.

ReMarks allows full PDF annotation (highlights, notes, annotations and voice annotations, handwriting and drawing), but unlike most other PDF annotation tools like Acrobat it also supports rubrics, comment banks, automatic calculation of marks and a class management database. Marker allocation, management and moderation are supported, with several charts of the grade distributions across cohorts, assessments and makers, and the ability to scale marks for selected groups.

ReMarks has many features, and the interface uses a familiar menu bar and toolbar configuration similar to that of the Microsoft Office suite before the introduction of the Ribbon in 2007. The main window uses bold, easily identifiable icons. The tablet version has a reduced set of tools with a clearer interface. However, due to the large number of features and dialog boxes, there is a moderate to steep learning curve for getting set up and using the tool effectively. Comment banks and rubrics may need to be configured by the user, and dialog boxes are not particularly accessible compared to the main toolbars. Multiple steps are required to set up classes and assignments, and it is not always clear from the user interface what you need to do next to complete the process. As such, training is needed to use this software effectively.

NOTE: ReRemarks PDF can also integrate with a LMS such as Blackboard for the bulk return of feedback and annotated student files. This functionality is not yet available at UQ.

SPARK PLUS (peer and self assessment)

Hosted service for a fee; from http://spark.uts.edu.au/

SPARK PLUS was developed by the University of Technology, Sydney (UTS) as a self and peer assessment tool. It is a hosted service that requires only a browser for students to log in and rate their own and their group’s performance or contribution to team tasks.

Licence fees can be quoted on contact. The website was last updated in 2011 and is mentioned here as an example of specialist approach to online assessment.

Web-based peer assessment platforms

iPeer (http://ipeer.ctlt.ubc.ca/wiki) and WebPA (http://webpaproject.lboro.ac.uk) are open source platforms that allow instructors to run peer evaluations. They require a server or hosting account to run.

For a review and list of some other peer assessment tools, see Software to support peer review, from the University of Strathclyde (www.reap.ac.uk/PEER/Software.aspx)

TA Toolbar Essay Grading Software (for Word)

Microsoft Office for Windows only; US$149; from http://tatoolbar.com

Primarily designed for instructors in English, writing and composition in the US, TA Toolbar is another Word toolbar that has a number of useful features for marking essays. The toolbars are attractive and colour-coded for clarity.

In addition to the standard embedded content (comments), the toolbar also uses hyperlinks to link to useful writing resources. The tool can search an essay for repeated errors, which are then highlighted. A summary of each error is placed in an index at the end of the document, so that patterns of repeated errors can be easily identified. You can also create ‘schemes’ or rubrics and automatically calculate letter grades.
The tool can search the Web for a selected piece of text to check for matches. This can help with checking for plagiarism or referencing issues. This is equivalent to copying text into the search box of your web search engine, but it does not provide pre-emptive text matching for the whole document in the way that Turnitin or SafeAssign do.

A relatively well-designed and up-to-date set of tools, with good web support and a learning curve similar to other Word annotation toolbars.

There is no Mac OS X version. The current version advertises a statistic module that was untested at the time of writing.

**UQMarkUP**

A prototype from the Centre for Educational Innovation and Technology (CEIT) at UQ.

UQMarkUp is a project by CEIT at UQ. Designed for ‘electronic feedback using text and audio’. UQMarkUp takes student work submitted to Turnitin, adds the work to Dropbox (the online storage service) and then allows the assessor to mark using text, drawing or voice annotations on an iPad (preferably generation 2 or later). Marked work is then uploaded and students are sent a URL which allows them view or download their annotated assignment online using any web browser. Students do not need an iPad to access their feedback.

A unique feature of this tool is that a teacher is able to access detailed analytics of how students are engaging with the feedback they are sent. It is also possible to collect statistics on feedback given by each teacher in the team.

This system is still in development. Enquiries to CEIT: ceit@uq.edu.au.

**Summary Table**

The table on the following pages summarises the tool discussed in the guide for quick reference.

NOTE: All details of pricing and licencing are subject to change by the vendors.
<table>
<thead>
<tr>
<th><strong>Availability and cost</strong></th>
<th><strong>Operating System</strong></th>
<th><strong>Ease</strong></th>
<th><strong>Assignment types</strong></th>
<th><strong>Criteria-based</strong></th>
<th><strong>Form of Feedback</strong></th>
<th><strong>Reporting</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackboard</td>
<td>UQ Site Licence</td>
<td>All – using web browser</td>
<td>Medium to complex</td>
<td>File submission, written, audio, video, discussion, blog, wiki, journal, test/quiz. Peer assessment capability.</td>
<td>Yes (rubrics for most tools but not with peer assessment)</td>
<td>Written, numeric. No in situ commenting if marked online, but can download student submitted files.</td>
</tr>
<tr>
<td>PAF tool</td>
<td>Developed and in use at UQ</td>
<td>All – using web browser</td>
<td>Medium: planning and setup required</td>
<td>Peer assessment for team projects.</td>
<td>Yes – instructors can set and reuse criteria</td>
<td>PAF score and comments</td>
</tr>
<tr>
<td>UQMarkUP</td>
<td>In development: inquiries to CEIT Free for UQ use only at this stage iPad app download to mark, and server components for administration</td>
<td>All – using web browser (for students to view feedback and for administration), iOS (iPad for marking)</td>
<td>Easy to mark on iPad</td>
<td>PDF files – written or graphical</td>
<td>Yes (basic rubric)</td>
<td>Text, mark-ups and audio – generates a custom URL for student feedback</td>
</tr>
<tr>
<td>Adobe Acrobat Pro</td>
<td>Requires licence (site licensed to UQ), or AU$100 for staff work-at-home licence (Adobe Master collection)</td>
<td>Windows XP, Vista, 7; Mac OS X</td>
<td>Moderate: tools are accessible and easy to use, but no customisation and not specifically intended for e-marking</td>
<td>Written assignments in PDF, but could be used to mark up diagrams or images</td>
<td>No</td>
<td>Comments and in situ mark-up (text corrections, drawing, notes)</td>
</tr>
</tbody>
</table>

*Requires UQ ITS support to implement functionality

# UQ supported tool for assessment purposes
<table>
<thead>
<tr>
<th>Tool</th>
<th>Availability and cost</th>
<th>Operating System</th>
<th>Ease</th>
<th>Assignment types</th>
<th>Criteria-based</th>
<th>Form of Feedback</th>
<th>Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annotate</td>
<td>Download (Free edition or Pro edition US$45 per user), trial version available</td>
<td>Microsoft Office 2007, 2010, 2013 for Windows; Mac OS X Office 2011</td>
<td>Moderate: Word toolbar, some customisation possible</td>
<td>Word or Excel files; primarily for written assignments and essays</td>
<td>No</td>
<td>Word or Excel in situ comments</td>
<td>No</td>
</tr>
<tr>
<td>eRubric Assistant</td>
<td>The eRubric Assistant component available separately and is free May not be updated</td>
<td>(eRubric Assistant Office 2000 to 2010 for Windows; Mac OS X Office 2004 and 2011)</td>
<td>Moderate – complex: easy to install, but the toolbar is fiddly and difficult to use; rubrics require simple coding.</td>
<td>Rubrics can be used for other assessment types.</td>
<td>Yes (rubrics)</td>
<td>Comments, marking sheets, highlights</td>
<td>No</td>
</tr>
<tr>
<td>Essay Grader</td>
<td>Download $6.50; additional purchases for comment banks Purchase from Apple App Store</td>
<td>Mac OS X, iOS (iPhone/iPad)</td>
<td>Moderate: can be customised</td>
<td>PDF - primarily for written assignments and essays</td>
<td>Yes</td>
<td>Generates a feedback sheet from comment banks</td>
<td>No</td>
</tr>
<tr>
<td>eMarking Assistant</td>
<td>iPad app $10, Android app (free, limited features to date) Purchase from Apple App store or Google Play store</td>
<td>iOS, Android</td>
<td>Easy, but not specifically intended for e-marking</td>
<td>PDF – written assignments, diagrams or images</td>
<td>No</td>
<td>Comments, in situ text corrections, highlights, draw, stamps/icons and audio (iOS only). Outputs PDF.</td>
<td>No</td>
</tr>
<tr>
<td>iSocrates</td>
<td>Download US$99 Last update 2009</td>
<td>Windows 98, XP, Vista; Mac OS X</td>
<td>Moderate: setup required</td>
<td>Written – any format</td>
<td>Yes (rubrics)</td>
<td>Marking sheet with comments and grades</td>
<td>List of scores</td>
</tr>
<tr>
<td>Markin</td>
<td>Download UK£25, Windows only</td>
<td>Windows XP, Vista, 7</td>
<td>Moderate – complex: application has a learning curve; requires set up</td>
<td>Imports from common text based file formats Exports to XHTML or RTF</td>
<td>No</td>
<td>Annotations, in situ comments and grades. Can export to XHTML for online viewing or RTF.</td>
<td>Statistic module for comments, but not grades</td>
</tr>
<tr>
<td>MarkRite</td>
<td>Hosted service, no fees specified</td>
<td>All – using web browser</td>
<td>Medium – requires set up for each exam</td>
<td>OSCE marking by assessor.</td>
<td>Yes (criteria and weightings)</td>
<td>Generates emails to students with comments/grades</td>
<td>Yes - email, exam grades file.</td>
</tr>
<tr>
<td><strong>Availability and cost</strong></td>
<td><strong>Operating System</strong></td>
<td><strong>Ease</strong></td>
<td><strong>Assignment types</strong></td>
<td><strong>Criteria-based</strong></td>
<td><strong>Form of Feedback</strong></td>
<td><strong>Reporting</strong></td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------</td>
<td>----------</td>
<td>----------------------</td>
<td>-------------------</td>
<td>---------------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>Installed by most users – UQ site licence</td>
<td>Windows, Mac OS X</td>
<td>Medium to complex – advanced knowledge of Word is required to configure autotext or Quick Parts</td>
<td>Any Word file; can convert RTF or plain text</td>
<td>No</td>
<td>Word commenting in situ and highlighting, tracked changes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Microsoft Word</td>
<td></td>
<td>Can be time-consuming to configure, but tools can be shared using templates</td>
<td>Marking sheets or rubics for other assessment types</td>
<td>Depends on workbook design (if set up as a rubric)</td>
<td>Separate marksheet</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Marking sheets or rubics for other assessment types</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UQ site licence</td>
<td>Windows, Mac OS X</td>
<td>Medium to complex – simple summary functions can be used or created to store grades or generate marking sheets. Advanced knowledge of Excel and/or VBA code is required to automate steps or workflows</td>
<td>Marking sheets or rubics for other assessment types</td>
<td>Depends on workbook design (if set up as a rubric)</td>
<td>Separate marksheet</td>
<td>Maybe – depends on design of workbook</td>
<td></td>
</tr>
<tr>
<td>Microsoft Excel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free to Australian tertiary institutions; registration required</td>
<td>All – using web browser and URL</td>
<td>Medium – planning and setup required</td>
<td>Almost any document type, URLs, or forms</td>
<td>Yes – default or custom feedback forms</td>
<td>Feedback forms, or other styles depending on assignment</td>
<td>Excel export in development; can copy and paste tables</td>
<td></td>
</tr>
<tr>
<td>PRAZE</td>
<td></td>
<td>Guides and support online</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Download; 1-year subscription $25 or site licence Desktop and iPad versions</td>
<td>Windows, Mac OS X, iOS</td>
<td>Medium to complex – large number of features required learning, but basic features are accessible</td>
<td>PDF</td>
<td>Yes (rubrics)</td>
<td>Comments, highlighting, rubrics, PDF output.</td>
<td>Yes – class management database, basic reports, and LMS integration* (with bulk return to students)</td>
<td></td>
</tr>
<tr>
<td>ReMarks PDF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hosted service, no fees specified</td>
<td>All – using web browser, requires logons and accounts</td>
<td>Requires logons and accounts</td>
<td>Self and peer assessment</td>
<td>N/A</td>
<td>Students rank own and others' performance online.</td>
<td>Generates a summary radar diagram</td>
<td></td>
</tr>
<tr>
<td>SPARKPlus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Download US$150, 10 hour trial available</td>
<td>Windows XP, Vista, 7; Office 2003, 2007, 2010</td>
<td>Medium – has some Web support and well-designed tools</td>
<td>Word format – written assignments and essays</td>
<td>Yes</td>
<td>Comments with in situ hyperlinks; can generate mark ‘schemes’ and grades.</td>
<td>Statistics module (not tested).</td>
<td></td>
</tr>
<tr>
<td>TA Toolbar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Assessment types:
- **Criteria-based**
- **Form of Feedback**
- **Reporting**

 grading: Medium to complex – simple summary functions can be used or created to store grades or generate marking sheets. Advanced knowledge of Excel and/or VBA code is required to automate steps or workflows.