



Recommendations for the use of e-learning tools for formative essay-type assessment

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Eva Heinrich¹, John Milne¹, and Maurice Moore²

¹Massey University, ²Appreciative Development Ltd

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Correspondence address: Massey University, Institute of Information Science and Technology, Private Bag 11 222, PALMERSTON NORTH

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1 Introduction

This report provides recommendations for the use of e-learning tools to support the management and marking of assignments for assessment. These recommendations have been developed as part of the eCDF funded project 'E-Learning Framework for Formative Assessment'. The main dissemination platform for the recommendations is the project website, located at <http://etools.massey.ac.nz>. This report combines all the recommendations into one document.

A comprehensive literature review set the foundations for the project. The first aim was to establish what the literature says about the characteristics and importance of formative, coursework assessment, commonly performed with assignments. The second aim was to identify what e-learning techniques, tools and approaches are described for assignment assessment, and to find out what is known about their effectiveness and the factors influencing uptake.

Key articles and books that have shaped current theory on formative assessment of student work were reviewed and a comprehensive search of e-learning literature from 2001 to the present, including over 580 journal editions and conference proceedings, was undertaken.

Besides researching the theoretical foundations the goal was to develop a picture of best practise on the use of e-learning techniques and tools for essay-type assessment. To achieve this goal 90 lecturers at five New Zealand tertiary institutions were interviewed. The sampling of the interviewees was purposive, looking for individuals known within their institutions for their engagement in this area. The interviews were structured around seven main questions, asking for assignment characteristics, the use of e-tools, views on advantages and disadvantages of tool use, and factors determining tool use. Additionally, demographic information on subject area, years of teaching experience and course context were collected.

Based on the findings from the literature review and the analysis of the interviews the recommendations towards increasing the uptake of e-learning tools for assessment with assignments were developed. The recommendations are aimed at individual lecturers, empowering them to make changes to their current assignment practice. Tertiary institutions are also addressed as they need to play their part in providing the best tools, a supportive working environment and appropriate policies.

The recommendations are provided in the form of profiles, case studies and action plan.

The project website (<http://etools.massey.ac.nz>) contains the full reports on literature review and surveys.

2 Profiles

The aim in writing recommendations for individual lecturers has been to give practical suggestions the individual can easily implement. The emphasis has been on providing motivation for using electronic tools and the steps to work from efficiency gains to quality improvements and from there towards more involved assignment designs. The profiles are written in a style directly addressing the lecturers.

2.1 Profile 1: Working towards Efficiency Improvements – ‘Getting there faster’

Are you frustrated with the amount of time you spend on mundane administrative tasks around assignment management and marking? What about using e-learning tools to lighten this load, so you can focus your energies on assisting student learning? This profile focuses on easy to follow steps towards efficiency improvements. It only refers to general purpose software and the standard features of common learning management systems and shows how to use these tools to speed up the processes around dealing with assignments. Working in a tertiary institution you should have access to all the tools mentioned and a support structure of e-learning advisors, should you require some assistance.

Supporting students with assignments

The lecturer needs to inform students about the assignment details. These need to contain the assignment specifications and instructions on how and when to submit the assignment. Additional information, like a marking rubric or criteria, helps to clarify the lecturer’s expectations. Making these documents available via the LMS used for the course has the advantage of providing a single access point. This removes the need to deal with students who have lost assignment instructions. Assignment documents can be made available as part of the general content modules or via the

assignment tools. Using the assignment modules has the benefit of preparing the LMS for student submission of assignments.

Submission of assignments

Traditionally, paper copies of assignments are posted or hand-delivered to admin staff or dropped into departmental assignment boxes. Someone, either admin staff or the lecturers themselves, needs to record submission time and safe keep the assignment papers until marking. Common problems are delays in postal delivery, lost assignments and the time spent on administration. Moving to electronic submission of assignments, especially via the assignment tool of an LMS, automates many of these tasks. Assignments are date and time stamped at submission. You can choose various settings, regulating options of late submission and cut-off dates. If setup accordingly, students can re-submit work, allowing them to fine-tune their work right to the submission deadline without having the fear of missing this deadline, due to last minute technical problems, for example. LMS are setup on an institutional basis. This means that a central IT section guarantees service, data security and safety. The welcome effect for you as a lecturer is that issues like assignment backup are taken care off.

Some lecturers prefer the use of electronic submission via email to the use of an LMS assignment tool. If your class size is fairly small, this might be a viable option. You still gain a number of advantages, mainly having electronic copies of the assignments available to you. Yet, in contrast to using an LMS assignment tool, you will have to perform most administrative tasks manually.

Students like electronic submission. They will generally produce their assignments on a computer so submitting electronically removes their need to print. As electronic submission is instantaneous students can work right up to the submission deadline. An electronic submission receipt can be sent automatically by an LMS providing peace of mind.

Preparation of marking

A detailed marking rubric or scheme will guide your marking and will make it easier for the students to understand your evaluation of their work. If you develop this document electronically it can be used as a template from which to copy and paste,

reducing the amount of typing for each assignment. You can also prepare a separate document with frequently used feedback comments for re-use through copy and pasting. This allows you to give substantial feedback on common problem areas while still being able to individualise these comments.

Should you be marking in a team it might pay to setup a folder with shared access. You can download the assignments from your LMS to this folder or store the assignments received via email there. Having all assignments in one place has the advantage that tasks like unzipping or decompressing files only have to be done once. You might want to arrange with markers to store their marking documents in this shared folder as well, making it easier for you to coordinate their work.

Marking

Lecturers use various ways of providing comments ranging from inserting comments directly into the student work and summary comments at the end of assignments to separate feedback sheets. With a bit of planning all of these methods can be used on electronic documents. The advantages of providing feedback in electronic form are faster document exchange, automatic retention of copies of the feedback comments and the increased legibility of typed comments.

Word processing software like Microsoft Word offers ‘track changes’ or ‘comments’ features for inline editing or feedback. Alternatively, you may just want to add your comments in a different font or colour. The advantage of the ‘comments’ feature in Word is that it clearly differentiates the marker’s comments from the student’s work. It also reduces the impact on the formatting of the student’s work. General comments can be added to the end of the document. PDF writer software, like Adobe Professional, also provides a commenting feature. You can combine any of these options with maintaining a list of frequently used comments that you copy and paste and individualise as required. It is best to think about your commenting approach early on so you can instruct students to submit assignments in the appropriate document format.

Filling out electronic copies of feedback sheets is possible even if students have submitted on paper. These sheets can be returned via email, still retaining some of the advantages of electronic feedback.

Keeping records

Marking done in electronic form, either directly in the assignments or on separate sheets, means that the lecturer automatically retains a copy, after returning the marking to the students. Having this copy is very helpful in case students ask for clarification on any aspect of the marking. Additionally, having copies of all marked assignments makes analysis on a class level much easier.

In many institutions student marks need to be recorded in special result processing systems students do not have access to. If marks are recorded electronically, for example in the assignment tool of an LMS, they can be transferred via standard file formats, alleviating the need for manual re-entry.

Releasing results and providing feedback

Releasing marks and feedback electronically means that all students have access to them instantly. This avoids problems with postal delays and the issues of confidentiality when handing assignments back in class without checking the identity of each student. If you return the results via the assignment tool of the LMS you have the additional advantage of one access point for all students, avoiding problems with incorrect email addresses and full mail boxes.

Using assignment experience for future teaching

To review overall class performance you might want to calculate some simple statistics like average marks. If you have used the assignment tools of your LMS this happens automatically, without any extra work for you. If you have stored the marks in another electronic format you should be able to import these marks into a spreadsheet program.

2.2 Profile 2: Working towards Quality Improvements, ‘Getting there better’

Once you have started to enjoy the efficiency gains from using standard e-learning tools for the assignment management and marking process you might want to look into the use of tools for improving the quality of the assignment process. Many of the generic features of learning management systems can be employed for support around assignments. Having assignments and marking available in electronic form opens up

new opportunities for ensuring quality. Like the first profile this second profile only refers to standard tools you should readily have access to. Some of the recommendations in this profile assume that you are following the steps suggested in the first profile.

Supporting students with assignments

The use of an LMS discussion board for communication about assignments before submission provides an opportunity to clarify tasks and facilitates student engagement. It is helpful to setup a separate discussion forum for each assignment in the course to focus the postings. If you monitor these discussions you have the chance of intervening before assignment submission.

Submission of assignments

See Profile 1

Preparation of marking

Shared electronic access to assignments makes it easier to moderate the work of markers. Educational theories provide guidelines on how to ensure consistency of marking. Shared electronic access makes it less time consuming to implement such guidelines, especially with part-time markers who are geographically dispersed. In your LMS you can setup a special discussion forum, confidential to your marking team. This would ensure that every member of the marking team is kept up-to-date with changes, for example with an evolving marking scheme. You need to agree with your markers on who is releasing the results to the students and on how you moderate their work before the release.

Marking

The procedure you follow to moderate the work of markers will depend on your choice of tools. If you work with a shared folder your markers might have to update you on which assignments they have finished marking or would like you to check. If you do not work with a shared folder the markers can email their work to you. If you use the assignment tool of an LMS the markers can upload their work for you to look at. The settings in your LMS should allow you to upload assignment marks and

feedback but to delay student access to this information until you have reviewed everything.

Even if you mark all assignments by yourself you might want to implement some scheme for checking assignments marked early on in the process to guard against marker drift. Again it could be useful if you setup your assignment in the LMS to not immediately release marking results.

Keeping records

See Profile 1

Releasing results and providing feedback

An important part of working with assignments is to provide students with guidance for their learning. Ideally students will consider the feedback provided to them, engage with the material and strive for improvement. Using electronic communication after the release of the marking results can facilitate this process. Personal communication with individual students can occur via email. Communication on a class level can be supported by discussion forums in the LMS. The content pages and message boards are a good way to release sample solutions and overall feedback to everyone. You might want to consider making sample solutions available immediately after the submission deadline. At this point of time the students' memory of the assignment task is still fresh and their interest in finding out the right solution might be high. They might look at sample solutions in the interest of learning and not just with a focus on marks.

Using assignment experience for future teaching

It is easy to keep electronic copies of assignments and marking for years to come. Looking back can be helpful on individual student level and for reviewing previous assignments for future teaching. An assignment task from one year might make a good tutorial example for another year. And, with the students' permission, it might even be possible to use student work for discussion on various solution approaches and difficulties. Further, you can extract well-written feedback and use this to guide future markers, providing them with examples suitable to the context of your course.

2.3 Profile 3: Moving beyond Standard Tool Use/Extending Assessment Design, ‘Stepping outside the conventional’

The first two profiles describe the use of standard tools for a standard assignment process. This third profile will be of interest to you if you are prepared to step outside the conventional. This can be to explore specialist assignment tools or to continue with the standard tools but use these in more imaginative ways. Your motivation might be to provide further educational benefits, to gain efficiency or to target both. As specialist assignment marking tools have been designed with marking problems in mind, a gain in both areas is possible.

Using non-standard tools will mean that you will have to get active to gain access to these tools and be willing to experiment. These tools are not difficult to use but like for any new tool, you will have to put some effort into their exploration. It might pay to work on a smaller pilot first until you have gained confidence. Some of the tools will only affect your side, the marker side, and not the students. This will make it easier for you to experiment, as you won't risk adverse reactions from the students.

You may have already thought about more involved assessment designs and quality control of the marking process, but might have hesitated because of the additional effort required. The use of standard tools beyond the conventional can help you to address these issues.

Most of the approaches discussed in this profile permeate the stages of the assignment process. This section has therefore been structured by themes and not by the stages.

Group assignments

Lecturers use group assignments for pedagogical and practical reasons. The questions that typically arise with group submissions are: Does only one group member submit the assignment on behalf of the group or does everyone submit? Are all submitted copies of one group identical? How do I ensure that all group members receive feedback? How do I make sure that I record marks for each group member? For large classes these questions result in considerable administrative overheads.

Some of the specialist tools address these issues. They facilitate the grouping of students by either explicit definition of groups or by automated detection of group membership based on the assignments submitted. During marking the tools associate

feedback and marks with all group members, while giving you the option of providing the same or different marks to individuals. All group members will receive marking results automatically.

Working with markers

Working with markers poses challenges in administrative overhead and consistency control. Some of the specialist tools help you with these challenges. The tools facilitate the sharing of marking rubrics. They allow you to assign markers to assignments, for example through an initial random distribution which can be adjusted manually should the need arise. The marking of all the individual markers is integrated by the tools into one overview. This allows you to easily monitor progress and to implement schemes of consistency checking. As marking with electronic tools retains copies of all marked assignments you will have a record of who marked which assignments and of all marking comments. This is very helpful when students ask you for clarification, as you immediately have access to the marker's comments. Combining all markers' feedback and marks, in total and per marking rubric, into one environment, assists with the analysis of the overall class performance. This in turn helps in your teaching preparation for current and future classes.

Plagiarism

Unfortunately plagiarism can be a major issue, with students copying work among each other and from external sources. Plagiarism detection tools help you to spot potential plagiarism. The tools compare student work on a class level and against ever increasing repositories of previous student work and publicly available material. Some of the plagiarism detection tools are combined with marking tools, addressing questions of marking rubrics, feedback and bookkeeping. You can also use a combination of tools, a specialist tool for plagiarism detection followed by the marking tool of your choice.

Focus on the formative process

One common concern around assignment marking is that students do not pay attention to the feedback provided to them and that therefore the formative effect is lost. To combat this problem one can extend the standard assignment process of submission and return to encourage involvement with the feedback. This can mean returning

marked assignments with only formative feedback initially, with marks either delayed or only provided after a student response to the feedback. Some lecturers allow resubmission of assignments in response to formative feedback. Peer-assessment processes can encourage students to engage with the assignment topics on a deeper level.

While some of the specialist tools support such processes directly, you can already achieve a lot with just using standard tools like LMS. For example, you could setup a two-part assignment, where the first submission serves largely formative purposes and the second expects the revised version. In a similar fashion the first submission could tackle a standard assignment task, the second submission would focus on student assessment of the work of their peers. Using a standard LMS you would have to perform the intermittent step of making the confidential assignment submissions available to the whole class, for example via the LMS content modules. Such processes could be complemented by the use of the LMS communication tools. In selecting which tools to apply and how to combine their use it is important to consider their individual strengths, like confidentiality provided by an assignment tool, open access on class level for a content module, or shared contributions in a discussion environment.

Ways of providing comments

What has been discussed in the previous profiles is to provide written comments either by writing directly into the student work or by attaching separate marking sheets. Some specialist marking tools add to this by allowing the marker to link their comments with the categories of the marking rubric. The advantage for the student is that the marking comments are related both directly to the context in the student's work and to the marking criteria. Some tools further offer special pre- or marker-defined symbols, for example for spelling or grammatical mistakes, that can be used to quickly point to problem areas. Another way in which some tools assist the marker is by providing various graphical highlighters that allow identifying the reference point in the student work clearly and without having to follow the textual layout.

Audio comments can be an alternative to written feedback. Using standard word processing software such audio comments can be inserted much like written comments at specific reference points in the student work. This might be an

alternative for markers who have problems with typing a large number of comments, for situations where audio comments suit the subject area, or simply to create student interest in the feedback by diverting from the norm of written feedback.

Further efficiency gains

Assignment submission and management with standard LMS tools already offers efficiency gains compared to email and paper submission. Still, specialist tools provide further advantages. For the submission of multiple files students are often asked to combine these files into a single compressed file. While standard LMS can accept such files they do not automatically uncompress back to multiple files. This means manual and repetitive work for the marker if not supported by a specialist tool that can perform these tasks automatically.

It is helpful to record the marking status of an assignment as part of the marking process. In the context of quality assurance it can be required to revisit an assignment marked earlier on or to review marking done by markers. Some specialist tools allow the marker to capture such meta information within the marking environment. This integrated approach increases the efficiency and in turn makes it more likely that quality assurance steps are actually undertaken.

Further quality gains

Opportunities for quality gains in terms of coordinating and monitoring the work of markers and of keeping information of the marking status of assignments have already been mentioned. What can be added here is the use of standard LMS features to involve students in the development of the assignment task specification and the marking rubric. Discussion tools can be used by students to exchange ideas and comments. The lecturer can use the content modules of the LMS to make draft documents available to students, for example after a class discussion on assignment goals and student work towards a possible marking rubric.

3 Case Studies

The case studies show scenarios in which e-learning tools are used for assignments. They are based on best practise extracted from the interviews with lecturers in New Zealand institutions and are related to the profiles.

3.1 Related to Profile 1 – Annotating electronic assignment copies with comments

Context

Jenny Brown teaches postgraduate courses in Education. Her classes usually have around ten students and the assignments are mostly essays. Because of the advanced level essay topics are not tightly prescribed and consequently the essays received show quite a bit of variation. Jenny works with a marking rubric and puts a lot of value on individual comments which she writes directly into the assignments.

With this fairly small class size Jenny asks her students to email the assignments to her directly. She then marks the assignments in electronic format and emails the marked assignments back to the students.

Marking with Track Changes and Comments

Jenny uses Microsoft Word for commenting on the assignments. Her students have to submit either in Word or RTF format (and that hasn't caused a problem so far). Jenny combines different forms of feedback, depending on what she wants to achieve. For low level, detailed comments that refer to a specific sentence or phrase she uses the 'Track comments' feature. Her comments are inserted right where they belong and show up in a different colour, making them easy to spot for the student. For high level, conceptual comments relating to a whole paragraph or section Jenny uses the 'Comments' feature. A small icon is placed in the essay text that expands to a comment box with Jenny's feedback. For the high-level feedback and concluding remarks Jenny types her comments at the end of the essay. She chooses a different font colour to make these comments stand out from the student's work. She finds that this combination of features gives her all the tools she needs to provide high quality feedback.

Advantages to Writing Comments on Paper Copies

Like most of her colleagues Jenny used to prefer marking on paper. But, she has discovered that marking electronically brings a number of advantages, to her and ultimately her students.

Jenny commutes to work and isn't in her office every day. The electronic assignments fit easily on her memory stick. Taking the assignments home with her no longer

means lugging a heavy bag and it's reassuring to know that she'll always have a backup copy in the office. Forgetting to take the assignments back or even losing them isn't an issue anymore. Jenny has even marked assignments on a plane en route to a conference using her notebook.

Jenny finds that reading and writing can actually be easier on a computer. She has quite a large monitor in her office. Some students use fairly small font sizes Jenny was struggling to read on paper. Now she just enlarges the assignments on her screen. It used to be quite strenuous to handwrite all the comments and towards the end of a long day's marking the legibility of the comments would suffer. Overall Jenny finds typing easier and the students certainly enjoy the improved legibility.

Two other advantages became obvious over time. With electronic comments it is very easy to go back, edit, change and even remove. Jenny feels much freer now to start commenting on student's work as she goes along reading, because she knows that she can always go back. This isn't often necessary but can be very useful if an essay develops in an unexpected direction. Despite the individuality of essays there are typical mistakes students make and often Jenny has the feeling 'I've explained that before'. Since starting to comment electronically Jenny has maintained a document with frequently used comments. She pastes important comments into this document and uses these as a basis for individualised comments, for the same assignment or even subsequent courses. Having this collection of comments on common mistakes has turned out to be a very good resource in Jenny's teaching preparation.

Summary

The lecturer receives electronic copies of assignments and annotates these with electronic comments.

The benefits are:

- Better readability than handwritten comments;
- Flexibility in editing comments;
- Opportunity for comment 're-use';
- Collection of important comments for teaching preparation.

3.2 Related to Profile 1 – Using the assignment tool of a learning management system

Context

At my institution we use Moodle as our learning management system. Moodle is setup for each of our courses automatically and we are encouraged to use it. I teach a mixed internal and distance course in the social sciences, for which I use the Moodle assignment module.

Submission

Currently I'm still giving internal students the choice of submitting via Moodle or handing in a paper copy to the departmental office. The number of students handing in on paper has been getting smaller and smaller. The distance students have to submit via Moodle because we don't want to have the delays from postal delivery. The students are used to Moodle anyway as we use it for providing course material and for discussions, so there isn't any problem at all for the students in getting used to the technology. What the students really enjoy (besides being able to work right up to the deadline) is that Moodle gives them a confirmation of submission. There is no more worrying about a paper assignment slipping in the wrong pile and being lost, and then having to argue about whose fault it was. It is also better than using email, because with email you send something off but you never know if it really has arrived.

Admin Support

In my department we have quite strong admin support. One of our admin staff monitors Moodle for incoming assignments. She distributes assignments to the markers, using a distribution scheme I've setup beforehand, and sends an additional confirmation to the students. The students appreciate that because it tells them that the marking is about to start and that they can expect feedback soon. I know that for some other papers that have more complicated assignment formats, the administrator unzips the assignments and puts them on a shared drive so the markers don't have to spend time on that. Another task our admin does is to make sure that all the marks are entered into Moodle and from there transferred to the other admin systems.

For my current paper this admin support is great. I have more than 200 students and our distance students especially, submit over a relatively long period of time. We try

to give them feedback as soon as possible after they have submitted, because we know that that gives us a better chance helping them in their learning. Having someone watching over the process is great. I've taught on other courses with fewer students and stricter deadlines and found that I could manage very well by myself. Moodle does all the basic work for you – the assignments are all in one place, date and time stamped, just sitting there ready for marking.

Marking

For the marking I leave it up to my markers if they want to read the assignments on screen or prefer to have them printed on paper. I know that some people find it difficult to read longer documents on the computer – it has taking me a while to get used to it. While this means using up a bit of resources on our side I still prefer that students submit electronically. The advantages we get from that in the handling and having copies of all assignments in one place, even after we've returned the marking, are just too good. Even with printed assignments I still encourage my markers to type their comments. There are many benefits in that. Students like typed comments they can actually read, we can email these comments to the students and again we keep an electronic record (that can be really handy if a student comes back to you with questions).

I've tried various systems over the past two years, from, drawing numbers on the actual assignments and referring back to these in a summary sheet, scribbling on the paper assignments and then scanning the whole thing, to using something like track changes in Microsoft Word for writing comments. Many combinations are possible, it just depends on what feels right for the particular assignment and the markers.

Summary

In this scenario the lecturer has used the standard features of a learning management system for the submission of assignments.

The benefits enjoyed are:

- Assignments don't get lost and are automatically time stamped;
- The students get an automatic submission confirmation;
- There are no postal delays;

- A range of options for marking is available, from printing and marking on paper to directly marking the electronic copies;
- One has a repository of all assignments.

3.3 Related to Profile 1 – Building up an electronic collection of marked assignments

Context

Bill Montague teaches IT courses to mostly second and third year students. His class sizes are usually around 50 students. The assignments for his courses can be either programming tasks or essays, in which students discuss conceptual or design issues. For a few years now Bill has used Blackboard's assignment tool for submission.

Process for Submission and Marking

Bill's students submit their assignments via Blackboard. Bill downloads the assignments to his network drive. He reads the essay assignments onscreen and executes the programming assignments. He fills out a feedback sheet for each assignment and emails these to the students. To keep track of the assignment marks he enters them into GradeBook, another tool provided by Blackboard. The students can access this tool to check their marks.

Focus on Supporting Student Learning

Bill puts lots of effort into providing feedback to each individual student and wants to ensure that students take note of his feedback. He offers his students the opportunity to write a response to the marking feedback, arguing their case and addressing key issues. The students can either send their comments or attach a new version of their assignment, as long as they clearly indicate how this new version improves on the first version (the onus is on the students to make a strong argument and highlight specific sections so it is easy for Bill to re-assess). In Bill's experience only a few students take up this opportunity but for those students who do it makes a real difference.

Bill uses email to communicate with the students. Having this dialogue via email is not just more convenient from a time-and-place perspective, it also helps to strengthen the students' argument. The students know that Bill is expecting well thought out

points and a written form seems to help students to articulate their arguments. Because Bill uses electronic versions of assignments and marking feedback he always has access to copies, so these documents don't have to be exchanged again. Bill had tried a similar scheme in the 'paper' days, but it always had been a bit tricky, as he had to trust the students not to have modified the original assignment.

Focus on Building up Learning Resources

At the end of each course Bill reviews the assignment tasks, the marking and the achievements across the class. He analyses how well the assignments have related to the learning objectives for the course and notes any changes he should make for the following year. He often uses assignment tasks from one year as tutorial tasks for future years. Looking through the marked assignment copies he identifies examples from key problem areas that he will discuss with his future students.

Focus on Training Markers

In one of Bill's second year courses the student numbers have been climbing over the years to reach a level where Bill will need some marking assistance. Bill knows about the challenges of training markers. It is not just about getting the summative part right, but it is equally important to provide students with valuable feedback. Bill knows that his repository of marked assignments will come in handy in training his markers as he will have examples of marked work in the right subject context available. Furthermore, he can go back to the unmarked versions of the electronic assignments (removing the student identification details to preserve confidentiality) and have the new markers assess these for comparison.

Summary

In this scenario the lecturer has used the standard features of a learning management system for the submission of assignments, email for the return of marking sheets and communication with the students.

The lecturer has used these features to gain the following advantages:

- Efficiency gains in dealing with assignment submission and return of marking results;

- Automatically retaining copies of assignments and marking that can be used for formative work with current students, for training of future markers and for development of future teaching;
- Improved communication with students using email.

3.4 Related to Profile 3 – Monitoring for plagiarism

Introduction

I am a business and management lecturer in a University. I teach undergraduate second year, third year and postgraduate courses to campus-based and distance students. For all of my courses I use the Turnitin tools for electronic marking and plagiarism checking.

I was drawn towards using the Turnitin (<http://turnitin.com/static/home.html>) anti-plagiarism system because I was aware that I could not know all the published literature about my topic and that left me feeling uncomfortable when assessing students work. Not just because I may miss something that had been copied and left unreferenced but also because I couldn't always be sure that what I suspected to be copied had been. I was also concerned that some students might not be able to read my writing and so that made electronic mark-up of assignments appealing.

The need to change

My students are located world-wide and although it's not an institutional policy, I wanted to be able to give the same assignment to all those studying the paper whilst allowing them to draw on their own professional and geographical context. To do this I needed to be able to assess work that used student experiences that were well outside my own as well as providing a way of managing the assignment process from all around the world. Using Turnitin gave me the tools to do that although I did need to change the way that I worked and challenge the things I took for granted.

Setting up Turnitin

My department bought a Turnitin and GradeMark licence. To use it, I set up a class in Turnitin and the system then gives me an id and password students can use to access the site. I set up the assignment descriptions, which are generally essays and reports, and set the due dates in Turnitin. Students have the instructions on how to access

Turnitin in their course outline and they enroll themselves, using their email address, course id and password, so I don't have to worry about doing that.

Assignments are submitted directly to Turnitin which then does an originality check on the work. There are loads of different settings in the system which gives flexibility on things like re-submissions and ignoring referenced material. The system then provides an originality report that shows what may have been plagiarized and the evidence it has based the opinion on. I find this really re-assuring! It's quick and I have a much greater level of confidence when I start marking the work. It also provides me with the evidence I need should I have to challenge the student.

Although I have never used it you can setup a peer review process which could be good for formative assessment.

Marking on the computer

Once the work has been submitted and I've been through the originality report, I use the GradeMark digital mark-up system. I read through the essay online and can highlight parts of the text and add comments. That way students get to see the comments exactly where they apply. Of course, this also means that the original work is unchanged and the students can't alter either the work they submitted or the comments I have added. There are features that save me time too. I can save standard comments to a clipboard and simply select them from the menu. Although I haven't used it there is a tool that lets you set up a marking rubric or marking schedule I guess you could call it. That could be a plus when external markers or team marking approaches are used.

Challenges with using Turnitin

A couple of things I have found a bit of a limitation. Turnitin can mess up the formatting of tables and doesn't handle pictures that well, in the versions I have used anyway.

One concern that's been expressed by students and staff is about the way everything submitted to Turnitin ends up in a US based database. Some people, particularly those with aspirations of working in the US, are worried that what they put into their assignments may end up being used by the US immigration service. It is possible to get Turnitin to delete all submissions but it isn't something that's easy to do. You

have to ask them to do it and it does appear deletion is at their discretion and not a right.

As with most technology there are some challenges. Whilst things like servers being taken down for maintenance are a fact of life you do need to keep an eye on the system messages and make sure that students are not disadvantaged or put under extra pressure. Another issue that I have witnessed is people trying to do things in the way they always have without taking into account the change in constraints and the new opportunities provided. If you can be flexible in the way you work there are very few real challenges and, in my opinion, lots to be gained.

Evaluation

To date I have done no formal evaluation of my use of Turnitin but anecdotally I am very happy with the way things are going. Students have made very positive comments to me and I feel more confident that I am providing a good service. I guess the lack of formal evaluation process has a lot to do with there being no institution-wide strategy to do with the use of this type of assessment tool. That is probably another reason why the tools are not being used that widely by my colleagues. I try to encourage people to see how Turnitin can help them meet the challenges of meaningful assessment but many seem to be content doing the same-old same-old.

Summary

The use of Turnitin and the GradeMark tool has helped me make more relevant and meaningful comments on student assignments which I believe has been really beneficial to both students and my teaching. By adapting my assessment process to take advantage of the tools Turnitin provides I believe I save time and effort when marking assignments. I have found it easy to use although I think you do have to be prepared to re-think the marking processes you are currently using.

3.5 Related to Profile 3 – Providing audio comments

Introduction

I am a communications lecturer teaching generic communications courses across a range of subjects. My students come from wide variety of backgrounds, some being technically oriented whilst others being artistic. I also have a number of students for

whom English is a second language. This variety of styles and cultures gives me many challenges when I'm providing constructive feedback.

The need to change

I started using audio feedback for students years ago, using a simple cassette tape recorder. I was motivated to use audio because I felt so limited by the lack of space for adding comment to assignments and also the time it took to provide written feedback. In communications it's common for each assignment to go through a number of iterations, drafts I guess you could call them, with each reviewed and commented on. Trying to explain the real issues using text based feedback often took a lot of effort because I had to make sure the emphasis of the comment was unambiguous and constructive. I find using audio feedback much faster and more flexible as it allows me to provide the sort of dynamic feedback that helps my students.

Marking using audio feedback

My colleagues and I use audio formative feedback for all our students regardless of discipline. So the technical trade students get it as do the business students. Typically I give 10 minutes audio feedback per assignment and this lets me give much richer feedback than I could when I was limited to text only. I'm able to offer them alternate ways of expressing a point and demonstrate how a particular statement could be ambiguous and how small changes can make a big difference. I also find, and the students tell me they do too, that audio feedback feels a lot less formal, a more conversational way of communicating feedback. Although I haven't done any formal evaluation, anecdotally I do think I get fewer complaints or queries over the feedback I give and I am convinced that I spend much less time marking.

The process

When I mark an assignment I start by saying the student name and description of the assignment. Depending on the tool I'm using, I either pre-save the audio file named with the student id and date or name it when I'm finished. That's because some stand alone recorders don't allow you to name the file at the outset. I then read through the assignment and when I get to a place that I want to comment on I start the recorder and add the comment. To help the student know what part of their work I am

commenting on, I use one of the following aids. If the section is easily identifiable (e.g. close to a paragraph heading) I just quote the part of the text I'm going to comment on and then add my comments. More frequently I mark the script with a number or a letter and then refer to that in my commentary. Once the audio is complete I save it and then either email it to the student with a marked up version of their work or burn it onto CD and mail it to them. Mostly I use the mp3 format. I have heard that you can add audio comments to Word documents but I haven't tried that myself. Worth a look though.

The technology

I've tried quite a few technologies for recording feedback and most work just fine. Even the cassette tape worked but the tapes were quite expensive. Thanks to the popularity of the mp3 format you can get all sorts of tools, many for free. I've used Garage Band on my Apple laptop and one of my colleagues uses Audacity on his PC. Audacity is a free recording application that is also really easy to use. You need a microphone of course and I find a headset really useful, especially in a shared office. I have also used stand-alone audio recorders, modern dictation machines like the Olympus DS. There seems to be a solution for most budgets.

Challenges with using audio feedback

Because the audio feedback I use is separate from the original document I do need to be careful about the labeling of the audio files. When I first started I did find that I needed to practice getting an appropriate narrative style but that doesn't take long to master. I use two methods depending on which one suits the situation. Sometimes I read the assignment right through first and make hand written notes but that method has its drawbacks. Not only does it take more time, there is a tendency to read your notes and this removes a lot of the richness you get from doing it live! I think it helps if you are a confident and clear speaker, not too many 'you know' or 'umms' but I think that's something that develops as you get more practice. In fact it can actually help you improve your own communication skills!

One technical challenge of using audio feedback is the size of the file that is generated. Using the mp3 file format the file size is often about 1 MB per minute of recording although this can be reduced by changing the export files settings. In Garage band, exporting an audio file as a mono podcast will give about 250

KB/minute. If you want to know more I suggest you do a web search on ‘reducing audio file size’ or similar key words because there is a lot of advice available.

Evaluation

When we work with a class for the first time we do have an evaluation questionnaire we ask the students to fill in. Audio feedback doesn’t suit everyone but in the 2 or 3 cases where students have really objected, we provide them with written feedback. In the end of course evaluation, our department has added a section that deals with just the audio feedback and how it can be improved. That way we can keep track of the shifts in the way our students use technology and we can adapt what we do.

Summary

By using audio feedback I believe I can provide much richer and more useful comments and suggestions for my students. I am certain that if you were to compare like with like, audio feedback takes much less time than written feedback. It is important that you adopt a style that works for both you and your students and I do modify my style for each student group. The cost is minimal for both consumables and the equipment itself so that hasn’t been a barrier for us. With the number of iPods and phone mp3 players around now, students have told me that audio feedback is making their learning experience much more flexible too.

3.6 Related to Profile 3 – Working with markers

Context

Shirley Earl coordinates a first year Business course with over 400 students. With that number of students the amount of time spent on the administration of assignments had become considerable. Last year Shirley had started to use the WebCT assignment tool for assignment submission. This had made her life much easier – all assignments arrived in one place and were automatically time-stamped. Still, there were a few aspects of using the WebCT assignment tool Shirley wasn’t fully satisfied with.

Because of the large number of students Shirley employs markers, usually about six per assignment. WebCT doesn’t support her in coordinating the work of these markers. Shirley uses marking sheets that contain the details of the marking rubric. For each assignment her team created an electronic copy of the marking sheet

(entering the student id and name manually ...) and provided individualised comments. When returning these marking sheets via WebCT one has to be very careful to send the right document to the right student - mistakes can be made quite easily.

Shirley heard about a new tool called WebCTConnect that supposedly addresses the issues she is facing. She set out to explore this tool.

Exploration

The first step was to check out the WebCTConnect website (<http://www-ist.massey.ac.nz/marktool>). Shirley stepped through the online tutorial and saw that there was a manual available as well. The download and installation of the tool worked without problems. One thing Shirley liked very much when thinking about using WebCTConnect was that nothing changes from the students' perspective – students continue to submit to WebCT and still receive their marking results via WebCT. But, just to make sure, Shirley used WebCTConnect to download the assignments from last year's course. She setup a trial marking scheme and marked a few of last year's assignments. In every WebCT course there is a record for a dummy student. Shirley returned her pretend marking results to WebCT just for this student so she could check in WebCT how things looked (to be able to do this Shirley used the feature of WebCTConnect that allows you to add an assignment even if the student, like the dummy student, hadn't submitted via WebCT).

Next Shirley explored the features around working with markers. She could again test these features by using the data from her old course. There was no danger in inadvertently changing any student records as all her explorations were contained in her own copy of WebCTConnect. Shirley decided to go ahead and use WebCTConnect with her large class. She liked the features of WebCTConnect and knew that she could simply go back to just using the WebCT assignment tool, without any impact on her students.

Getting the markers up to speed

Just before the assignment deadline Shirley met with her markers. Most of the markers had helped Shirley the previous year and were already familiar with the marking of electronic assignment copies. Shirley reminded her markers of the

requirement of storing the assignments on a password protected drive. She then demonstrated WebCTConnect to the markers and discussed how the marking team was going to use the features of WebCTConnect to electronically exchange documents for coordination and quality assurance.

The markers went away to install WebCTConnect on their own computers and imported the marking scheme Shirley had emailed them.

A marker's experience of using WebCTConnect

Jim was one of Shirley's markers. In WebCTConnect, Jim could clearly see which assignments Shirley had allocated to him. For each assignment he marked, WebCTConnect immediately had a personalised copy of the marking sheet ready, eliminating the time spent previously on copy-and-pasting. Jim was really pleased about two other features of WebCTConnect, the in-built list of frequently-used-comments he could expand on as he went along and a field for comments to himself for each assignment, which he sometimes used to remind him to go back and check on some details. At the end of each marking session Jim simply emailed his marking to Shirley. As these emails contained only the marking information and not the actual assignments this didn't take long at all.

Shirley's experience of using WebCTConnect

Shirley was very pleased how WebCTConnect supported her in monitoring the work of her markers. She had asked all markers to start by assessing the same three assignments and email her the marking. In WebCTConnect Shirley could compare the marking of all three assignments and pick up on some different interpretations of the marking scheme right at the beginning of the process. Receiving the frequent marking updates allowed Shirley to track progress and do consistency checks across the markers. All of the communication and exchange with the markers was done electronically. This was a big advantage as some of the markers were off-campus and preferred to work after hours, making frequent face-to-face meeting difficult.

After all marking was finished and she was satisfied with the marking quality Shirley uploaded all results and feedback from WebCTConnect to WebCT. She could do that with just a few clicks – WebCTConnect automatically sent the right feedback sheet to each student.

The students' experience

The students didn't even know that Shirley and her marking team were using WebCTConnect. All the students saw was the interface to WebCT. They did appreciate submitting via WebCT and getting their results back the same way as this was fast and convenient. Plus, they liked the comprehensive feedback they received, starting with a clear outline of the marking criteria and sections of individual comments linked to those criteria.

Summary

Adding WebCTConnect to the WebCT assignment tool helps with additional efficiency gains and makes it practical to implement schemes for ensuring marker consistency. The students only interact with WebCT.

This approach has helped the lecturer by:

- Being able to allocate markers to assignments.
- Electronically exchange marking information within the marking team.
- Monitor the marking process.
- Return individualised feedback sheets for the whole class within a few clicks.

(WebCTConnect provides further advantages, like dealing with group assignments, automatically unzipping files and exporting all marks and comments, that have not been discussed in this scenario.)

4 Action Plan

It is important to plan ahead when working with assignments. One not only needs to prepare oneself but also has to communicate information about assignment formalities to the students. The following timeline provides suggestions. Depending on one's assignment approach not all items in this plan will be relevant. This Action Plan should be read in conjunction with the Profiles.

The major steps are presented as a timeline first, followed by detailed information.

Step in teaching cycle	Activities to commence
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Start of Course Planning	Define Assignment Process
Release of Official Course Documentation	Finalise Assignment Details
Announcement of Assignment Task	Prepare Marking
Assignment Submission Deadline	Mark Assignments
Release of Marking Results	Communicate with Students on Marking Results
End of Course	Review Assignment Process
End of Course Review	–

4.1 Define Assignment Process

Identify what tools are available at your institution	For the standard tools this will be obvious. For more specialised tools you might have to ask around. Your institution might have access already or might be willing to support your request.
Identify and attend training opportunities	Your institution might offer courses. You will be able to find some material online.
Seek contact with colleagues who have used tools	Ask around your colleagues, they might be willing to explore the same issues. Staff in the e-learning support section of your institution might be able to put you in contact with others.
Experiment with the tools	Always try out all features you might want to use, best in the context of your own situation, e.g., by re-marking a previous assignment. The e-learning support team at your institution might be able to setup a trial course for you in the LMS. Use a trial course and pretend students to follow through the whole process, both from the marker and the student perspective.
Arrange access to tools for your students	You might have to apply in your institution to have an LMS component setup for your course.
Plan your approach to using tools for your assignment	Do assignments have to be submitted in certain document formats so you can use your selected

considering all phases of the assignment process	<p>tools for marking?</p> <p>Is there anything specific about your discipline which could have a flow-on effect on tool selection (e.g., do you need to deal with mathematical formulas or computer programs?).</p> <p>How will you work with markers? Will they have access to the tools required?</p>
Identify what information you need to communicate to students	<p>What level of computer access is required?</p> <p>Does this level match the classification of your course as web-supported, web-enhanced or web-based?</p> <p>Do you students need specific tools or skills?</p> <p>Will the process require any involvement besides submitting a solution?</p> <p>Will the students need to look for team members?</p> <p>What information do you need to give students regarding mechanisms for submission, release of results and communication?</p>

4.2 Finalise Assignment Details

By now you have informed the students about the assignment parameters like submission format and mechanisms. It is now time to refine the actual task description.

Fully formulate the assignment task	<p>Describe the assignment task in detail.</p> <p>Summarise all the assignment parameters so students have all information together in one place.</p>
Work out a sample solution	<p>This helps you to determine if the assignment task is targeted at the right level.</p> <p>It assists you in working out the marking rubric.</p> <p>You'll have it ready for release after the submission deadline.</p>
Prepare a marking rubric	<p>Possibly prepare two versions. One version for release to the students together with the assignment task.</p> <p>Another more detailed version that contains references to the sample solution and potential feedback comments to be used for marking.</p>
Setup a communication	<p>This could be a discussion forum in the LMS to be</p>

mechanism	used by students before the submission deadline.
For group assignments, work out mechanisms for selection of team members	<p>If you are using tools for this you will have to set these up.</p> <p>You might want to use a discussion forum in the LMS to allow students to look for team members.</p> <p>You might want to define a mechanism by which you can monitor the composition of groups.</p>

4.3 Prepare Marking

By now you will have released the full task description together with all assignment parameters and possibly a marking rubric.

Monitor the communication	You need to monitor the discussion on the assignment and provide additional or correcting information.
Preparation of markers	<p>Sometime before the final submission deadline you might want to discuss the marking procedures and tool use with your marking team.</p> <p>Depending on which tools you use for submission you might want to use some early submitted assignments to check for agreement between your markers (depending on settings for your assignment your LMS might restrict download of assignments before the due date).</p> <p>You might want to setup a communication mechanism for the marking team.</p>
Dealing with incoming assignments	<p>If you have chosen to receive assignments via email you will need to save these assignments as they come in and you might want to record submission times.</p> <p>If you use the assignment tool of your LMS you might want to occasionally verify that assignments are being submitted, otherwise you do not need to do anything.</p>

4.4 Mark Assignments

All assignments are now submitted and the marking can start.

Release of sample solution	You might want to release a sample solution to the
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	class.
Preparing access to the assignments	<p>If assignments are arriving by email you will have stored them already in one dedicated place.</p> <p>If you use the assignment tool of your LMS you will need to download the assignments.</p> <p>If you work with markers you need to assign assignments to markers.</p>
Marking	<p>You use the tools and mechanisms selected for providing feedback.</p> <p>If working with markers you conduct your steps of monitoring markers and ensuring marking quality.</p> <p>If you mark by yourself you should guard against marker drift by revisiting assignments marks early on.</p>
Overall evaluation	<p>Looking across all assignments you can identify general strength and weaknesses and prepare material for further teaching accordingly.</p> <p>You might want to calculate some simple statistics for the assignment or look at the statistics the LMS has prepared for you.</p>
Storing of marks	<p>You need to store all the marks for future reference and for import into your institution's result processing system. Depending on the tools you have chosen you might be able to simply export the marks in the required format.</p>

4.5 Communicate with Students on Marking Results

The marking results have now been released via the mechanism announced to the students earlier on.

Communication with students	<p>Students will approach you with questions about the marking of their individual assignments. Access to the electronic copies of the marked assignments will help you in responding to these questions.</p> <p>You might want to use the general communication tools of the LMS for communication on a class level.</p>
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4.6 Review Assignment Process

The course is finished for the students.

Reviewing of the assignment material	Marked assignments can be a valuable resource for future teaching. You could analyse the assignment task, marking rubric, marking comments and student work to extract material for future use.
Reviewing the tool use and the marking process	You should analyse how well the tools chosen have supported you and your marking team and how suitable the processes employed have been.
Storing marked assignments for future access	You should make sure that you have stored the marked assignments in a form that guarantees future access.