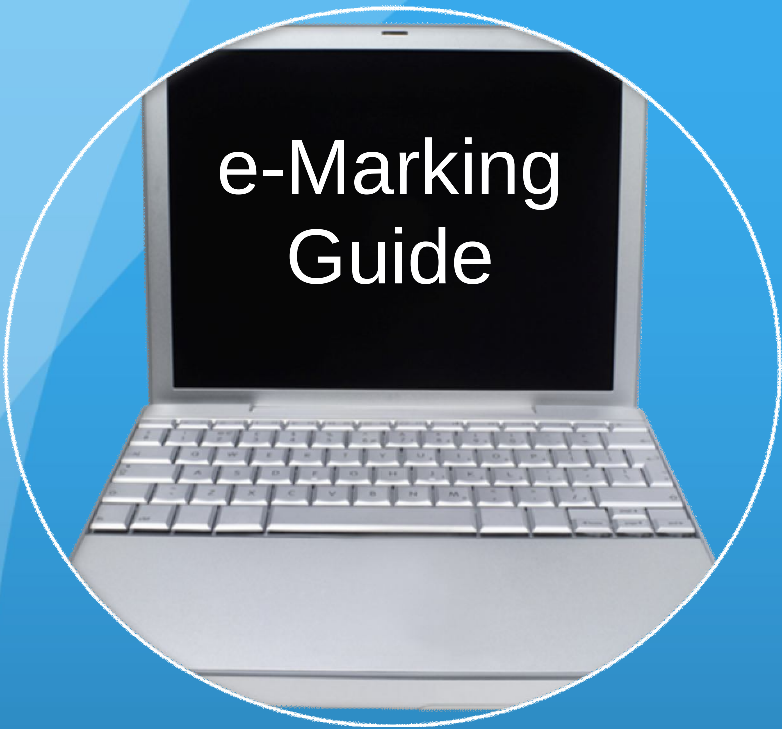

2013 ANZAM - Promoting Excellence in Learning and Teaching Project

e-Marking Guide for Management Courses

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Preface

Dr. Herman Tse and Dr. Anne Christie were awarded a research fund from the Promoting Excellence in Learning and Teaching Committee of the Australian and New Zealand Academy of Management in 2012.

As part of this funded project, this e-Marking Guide and a research-based article have been developed to understand how university students and teachers perceive the effectiveness of online marking for management courses. The research–based article was accepted for publication in the 2013 ANZAM conference proceedings, and subsequently will be submitted for a journal publication. This e-Marking Guide for management courses is a practical guide which outlines essential steps and issues involved for users in marking written assessments.

We acknowledge that different universities have been implementing different e-Marking systems such as “Turnitin”, “Remark” “WebCT” or “Blackboard”. These are updated constantly and require users to undergo regular training in order to maintain their operational knowledge. This guide is not an instructional manual on these systems rather it examines the common processes involved in e-marking when using basic word processing tools. This guide provides a foundation upon which users can build their knowledge of e-marking in more complex systems.

This e-Marking Guide is designed for sessional teaching staff, RHD students and academic staff who are new to university teaching and learning and those who are unfamiliar with e-Marking, so that they will find it easier to begin with marking electronically. This guide will also help all users understand the essential steps and processes embedded in different e-marking systems in universities. The users will be more effective in learning different university e-Marking systems as required.

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1. Introduction

The process and purpose of providing feedback to students in higher education is a complex topic. It includes linkages to learning and assessment for correction, identification of problem areas and guidance on future direction. The timing of feedback can impact on a student's willingness to receive it and the clarity of the feedback is integral to the interpretation of it. In addition to this, the relational aspect of feedback in the student/teaching staff relationship also impacts on its effectiveness. Approaches to providing feedback range from personal face-to-face approaches through basic electronic approaches to full-scale systematic approaches using large databases with high levels of integration.

Clearly, there is a need to provide detailed and quality feedback to students in a consistent, time-efficient manner through processes that reduce printing costs and delays in the submission and return of assignments. Universities have responded to this need with large corporate electronic systems, many of which are in the early days of implementation and review. These systems are needed to ensure linkages between the marking process and learning management systems that also contain assurance of learning checks and functionality for improved communication with students regarding their marks.

Basic forms of e-Marking may involve multiple handling of documents, manual calculation of mark totals, limits to the type of annotation tools available, and have limited or no integration with learning management systems such as Blackboard and Moodle. Despite this, there is still a need for basic electronic marking processes to be used particularly in the case where standardised corporate systems do not allow the flexibility needed for teaching staff to develop their own tailored approach to providing feedback incorporating a desired level of correction, relationship, and guidance on future academic development. It is also useful for new academics such as research higher degree students to engage in the practice of developing their own comment banks and style of feedback.

2. Purpose of this Guide

The purpose of this guide is to outline the essential steps involved in e-Marking including examples of options for the types of annotations that are commonly used by academic teaching staff for assignments in management courses.

3. Generic Process of e-Marking

There are many ways to tailor the process of electronic marking depending on the word processing software used and the available integration with corporate electronic systems in different universities. However, there is a generic process upon which further enhancements can be made. This 10-step process is primarily for use with essay style assignments or written assessments in management courses. The generic process is listed in Appendix A and outlined in detail throughout this document.

3.1 Submit assignments as Word documents

Most university learning management systems will accept assignments in a number of formats including:

.doc, .docx – Microsoft Word documents

.odt, - OpenDocument text documents

.txt – Plain text files

.pdf – Adobe Portable Document Format

.rtf – Rich Text Format

.html – Hypertext documents/webpage files and

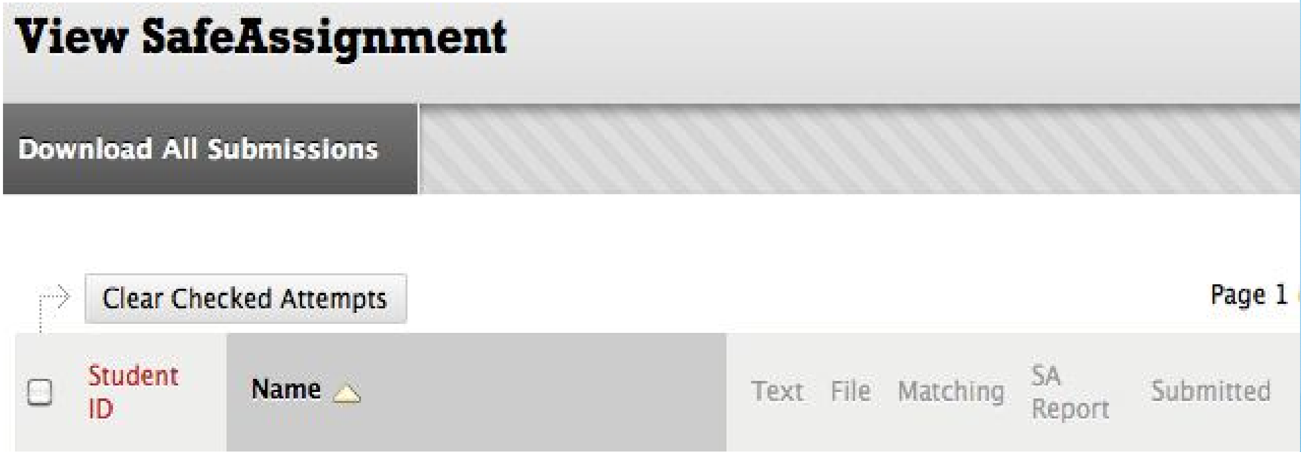
.zip – Zip files to upload multiple files (also useful for direct submit).

Assignments should be submitted in a format that is most suitable to the task requirements however it should be noted that having essay style assignments submitted in Word format allows greater flexibility in the format of feedback that can be given. Students using Apple software can easily save a Word compatible version. Although it is possible to annotate pdf documents with comments, these comments may not always be visible to the student unless they hover their mouse over the point at which the comment was inserted. If the assignment is submitted as a Word document, the marker is also able to use more advanced functionalities in Word (e.g. Building Blocks in Word 2007) to incorporate comments. Word format is therefore the preferred submission format.

3.2 Download assignments and check for originality

After students have electronically lodged their assignments, the marker can download them from the university learning management system to their computer for marking. Students are generally required to submit their assignments into corporate learning management systems that commonly include a function to check for originality (e.g. SafeAssign or Turnitin). A report is produced which can then be used for further investigation by the lecturer. A copy of the download screen can be found below in Figure 1. The checking for originality has its limitations. Checks are performed by comparing the document with other documents that are available in electronic format online. In many cases this excludes books and articles etc. that have not been produced in an electronic format. Human judgment is therefore required when reading assignments to discern whether there is reason to suspect the work is not original. Further investigation could then be undertaken as an additional step before marking the assignment.

Figure. 1 Example of SafeAssign Download



When students are required to include common information or attachments such as assignment coversheets in their assignments, the data in the originality reports may become overinflated. Markers should consider whether it would be more suitable to have the students submit coversheets etc. as a separate file. In this situation it is important to ensure that the filenames can be matched or a better option is to request that the students include a header or footer that contains their name and student number. If the assignment is a group assignment then only one assignment will be lodged but the lecturer needs to ensure that feedback is given to all members of the group individually. Electronic submission and collection of assignments is more efficient in that it decreases the printing costs for the student and allows the lecturer to access the work at any time and from remote locations. Providing feedback to students can be achieved in a more timely fashion when using electronic submission and collection procedures.

3.3 Open the marking criteria worksheet or rubric

There are a number of ways to indicate to students the level of the quality of their work and the weighting this has on their assignment scores. Most universities utilise criterion-referenced assessment which involves marking in accordance with clearly defined standards for assessment rather than comparing students against each other. Below are 2 examples of different approaches used to develop marking worksheets or rubrics.

Figure. 2 Marking Worksheet

Marking Scheme

Criterion	Weight %	PHYSICAL PRESENTATION						
			Mark					
Format	2	Well formatted						Poorly formatted
Length	2	Reasonable length						Under word limit
Sources	6	Sources acknowledged appropriately						Sources not acknowledged
Citation	4	Correct citation of sources						Sources not cited
		QUALITY OF ARGUMENT						
Relevance	25	Argument is relevant to the topic						Argument does not address the topic
Depth	25	Depth of argument is appropriate						Argument lacks depth – no integration or critique
Errors	4	Argument is free of errors						Argument contains significant or fundamental errors
Logic	10	Argument is developed logically						Argument lacks coherence
Support	8	Effective use of data, tables, figures and/or examples to support the argument						Absence of supporting data, tables, figures or examples
Total								

Comments

In Figure 2 above there is a high degree of specification in the criteria with a weighting against each to indicate the importance of that criterion in the overall assessment. The standard of quality is indicated from high to low on the right. The criteria are grouped in sections such as physical presentation, quality or argument, etc which are designed to align with marking criteria issued to students and rubric criteria contained in the corporate learning management system. This provides a greater degree of feedback to the student as it identifies specific areas for improvement. The focus here is on providing the student with as much information as possible while not making the task onerous for the marker.

Comments may be included on this marking worksheet however these should be summative in nature with specific comments included in-text at the source of the area for improvement. The marking sheet or rubric only provide feedback on the standard of the student's current work and the process of providing guidance or future direction should be incorporated through other processes such as in-text comments or student consultation. Consideration should be given to what you are trying to communicate to the student through each of the processes used and that should be the focus of the document.

Figure 3 below is more summative in nature and provides less guidance to the student but none the less is a valid approach to communicating the student's performance against the standards required for the assignment. The criteria are indicated on the left hand side in the first column and then the quality or the standard against each criterion is indicated in the columns to the right. This gives a simple 2 x 2 view of the assessment standards and the focus here is on specifying the differences between the standards of quality. This should communicate to the student the standard required to achieve each grade. For example, when reading the descriptions in the Unsatisfactory column it would not be clear to a student why their work should be considered unsatisfactory if they achieved these standards.

Figure. 3 Marking Rubric

RUBRIC

Criteria	Excellent	Very good	Good	Un-satisfactory	Poor
Completed required tasks correctly (10 marks)	Completed all tasks very thoroughly and correctly	Completed all tasks thoroughly and correctly	All tasks completed, correct	Completed all tasks mostly correctly	Does not complete tasks, incorrect responses
Application of selected course content (theory) and analysis (20 marks)	Relevant theory is carefully selected and applied in depth to develop a very well thought out and analytical report	Carefully selected relevant theory is applied in some depth to develop a very good report	Relevant theory is selected with some application to develop a good report. Could have more analysis	Some relevant theory is included but is mainly described, not applied. May try to cover too much, or not enough theory	Little or no course content (theory) is included. No application or analysis
Academic processes *Reference technique* in body and list (APA or AGPS Harvard according to GBS Resources Bank). *Writing:* comprehensible, expression, grammar, spelling, no colloquialisms;, no discriminatory language. Good *paragraphing* (10 marks)	Excellent attention to detail, correct, consistent academic process with few if any errors. Very well written.	Very good attention to detail correct, consistent academic process with few errors. Well written.	Good attention to detail and correct, consistent academic process with a few errors	Some attention to detail and correct, academic process with some errors	Needs more attention to detail and a lot more correct, consistent academic process. Too many errors

Total Mark (out of):

Comments (if any):

Care should also be taken when labeling the standards and then assigning marks to each of the cells. Figure 4 below is an edited version of the rubric above and you will note in this version that the Unsatisfactory heading has been replaced with Satisfactory. The criterion illustrated is worth 10 marks so these marks could be allocated evenly across the categories in increments of 2 marks. This would mean that Poor would be up to 2 marks, Satisfactory up to 4 marks and so on. By doing this however, a student who provides Satisfactory work would be given a mark (4/10) that does not reflect this standard. Therefore it is essential when developing rubrics to be aware of the way in which rubrics may be used by markers and to consider the appropriateness of the categories used.

Figure. 4 Rubric headings

RUBRIC

Criteria	Excellent	Very good	Good	Satisfactory	Poor
Completed required tasks correctly (10 marks)	Completed all tasks very thoroughly and correctly	Completed all tasks thoroughly and correctly	All tasks completed, correct	Completed all tasks mostly correctly	Does not complete tasks, incorrect responses

3.4 Insert the worksheet or rubric into the assignment

Some teaching staff ask the students to insert the marking criteria sheet or rubric at the end of the assignment before they submit it. While this does save time for the marker it relies on the student inserting the file in a useable format and not just inserting a screen shot or image of it that cannot then be used easily. The other issue that was outlined above is that if all students submit this common information in their assignments it has an impact on originality reports provided by learning management systems.

3.5 Generate or open a relevant comment bank

One of the most common ways of providing specific feedback to students about their writing is through inserting in-text comments into assignments at the point where the comment relates. Unfortunately, it can be a very time consuming task to comment on each point throughout an assignment. It is also important to ensure that comments are fair and reasonable so that students do not have grounds to complain about them. For example, a comment such as “you have not thought this through as well as others in your group” compares one student against others and is not appropriate, particularly when using criterion-based assessment.

For some criteria it may be possible to incorporate instructional comments alongside indications of the nature of the error. However, the use of this may be limited because of the length of comment that this often requires. For example, in Figure 5 below, the comment in A3 “Punctuation is not appropriate” is then backed up with an instruction that commas are required to clarify the phrasing of the sentence. This is an example of a short comment that includes a positive statement about how to address the error. If the direction or instruction to be given is wordy or needs to be modified on a case-by-case basis then it might not be possible to include it in the comment bank. The teaching staff may need to consider implementing another process to instruct students if there is a common error made and the instructions to remedy the error are too extensive to be addressed through marking comments. For example, where students make grammatical errors the marker could change the sentence if it was an isolated instance but if it was an issue throughout the assignment then the marker may point the student toward assistance services available within the university or to other information such as writing guides that the lecturer prepares and lodges on the course website.

Comment banks can be developed over time and should address the major errors or difficulties that students encounter in achieving high standards against each marking criterion. It is therefore useful to design a comment bank in sections that address the relevant marking guidelines and criteria. For example, most essay style assignments require students to demonstrate analysis or reasoning skills and use high quality academic references to support their arguments. So it is possible to develop a comment bank in advance by listing common problems in each of these component areas. Of course, these can be added to over time and comment banks should always be seen as a work in progress. As assessment criteria are changed so too is there a need to modify the comment bank accordingly.

Figure 5 also illustrates the use of coding the comment bank. Instead of inserting the whole comment into the document, some markers insert the code and provide the full list of comments to students who then need to look up the relevant comment for themselves. This may be effective when using a small comment bank but cumbersome and confusing when using larger comments banks that include criteria for more than one type of assessment. For example, the assignment my require the student to “describe” a situation and in the comment bank there may be criteria relating to describing but also to analysing a case. If the student sees categories or standards such as “analysis” that apply to other courses or assignments, they may get confused.

Figure 5. Sample Comment Bank

Comment Bank

Academic Processes
A1 Fragmented sentence – reword it.
A2 Mixed tenses used – use the one tense throughout the document.
A3 Punctuation is not appropriate – commas are required to clarify phrasing.
A4 Wording – the word you are using is not applicable here so reword it.

Citations and References
C1 This is a direct quote or very close to it. Quotation marks and a citation are required here or you need to paraphrase it.
C2 Cite all sources used including internal organisation sources.
C3 Format citations in accordance with APA style guide.
C4 Format references in accordance with APA style guide.

Evidence for argument
E1 Use findings from empirical studies to support your argument.
E2 Clearly outline evidence that supports your argument.
E3 A good point but explain your argument in more detail.
E4 You have stated a collection of opinions from other authors but need to draw this together into a reasoned argument.

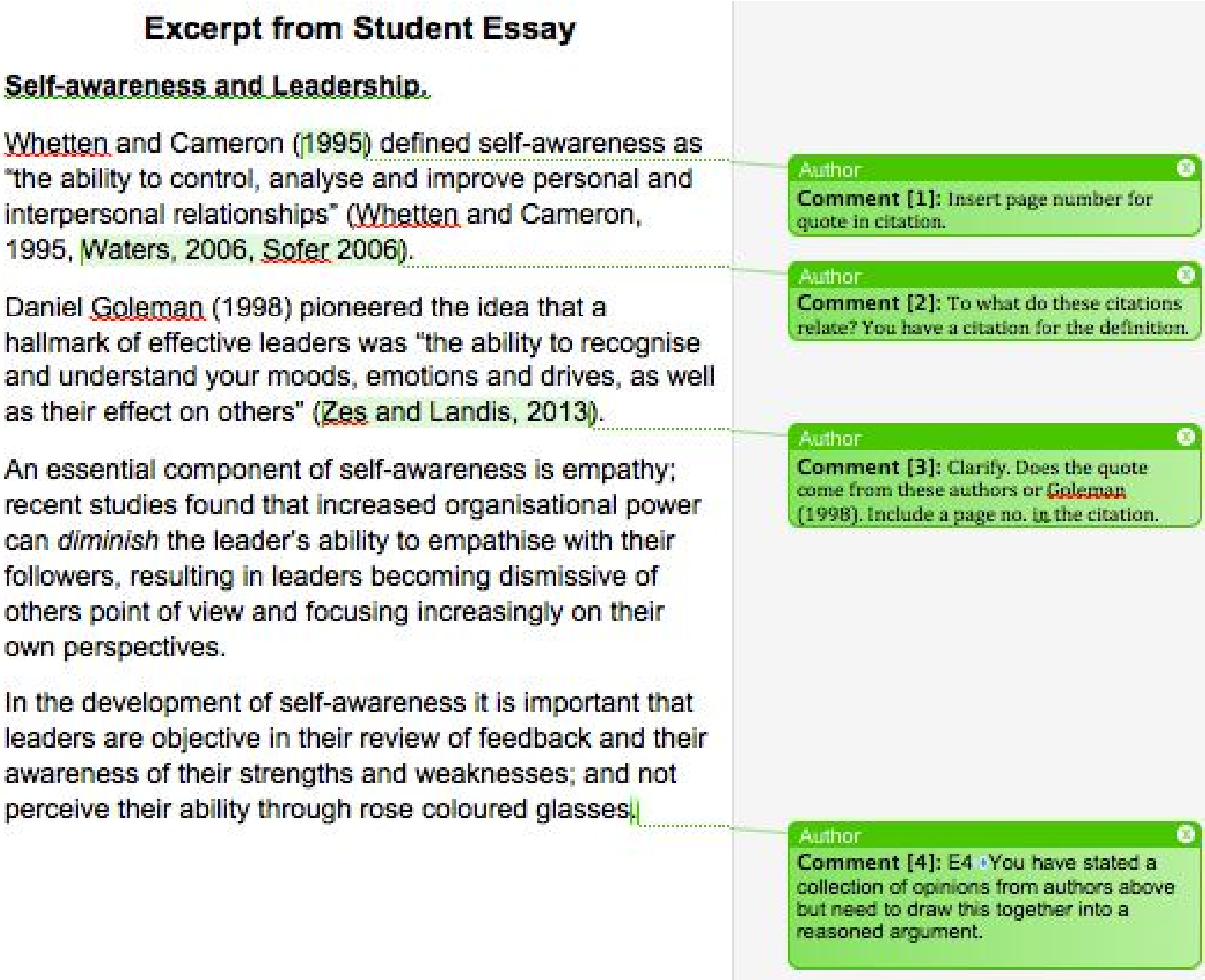
Format
F1 Refer to guidelines issued for this assessment for sections required.
F2 Paragraphing – This paragraph is too short. Combine with previous one.
F3 Start a new paragraph for each new idea.
F4 Format all tables and figures in accordance with the APA style guide

Logic and Reasoning
L1 Develop a logical argument. This point does not follow logically from the previous point.
L2 State your reasons for why you came to this conclusion.
L3 This statement is off on a tangent. Stick to your main line of reasoning.
L4 This section needs to be structured logically with sound reasoning to support it.

3.6 Annotate the assignment with comments

Once the marking criteria and comment bank have been created, the student's assignment should be opened, marked and comments inserted. There may be a number of errors in each paragraph but it is important for the marker to consider not only the type of comments made but also the volume. For example, in Figure 6 below, this student had already been corrected on using statements such as "recent studies" (see paragraph 3) without including the relevant citations so this point was not addressed again here or throughout the rest of the essay.

Figure 6. Annotated Assignment



Excerpt from Student Essay

Self-awareness and Leadership.

Whetten and Cameron (1995) defined self-awareness as "the ability to control, analyse and improve personal and interpersonal relationships" (Whetten and Cameron, 1995, Waters, 2006, Sofer 2006).

Daniel Goleman (1998) pioneered the idea that a hallmark of effective leaders was "the ability to recognise and understand your moods, emotions and drives, as well as their effect on others" (Zes and Landis, 2013).

An essential component of self-awareness is empathy; recent studies found that increased organisational power can *diminish* the leader's ability to empathise with their followers, resulting in leaders becoming dismissive of others point of view and focusing increasingly on their own perspectives.

In the development of self-awareness it is important that leaders are objective in their review of feedback and their awareness of their strengths and weaknesses; and not perceive their ability through rose coloured glasses.

Author
Comment [1]: Insert page number for quote in citation.

Author
Comment [2]: To what do these citations relate? You have a citation for the definition.

Author
Comment [3]: Clarify. Does the quote come from these authors or Goleman (1998). Include a page no. in the citation.

Author
Comment [4]: E4 You have stated a collection of opinions from authors above but need to draw this together into a reasoned argument.

The “Track Changes” functionality in Word may be used when a marker wishes to illustrate the correct wording or approach to the assignment such as reordering paragraphs to improve the logical flow of the argument. It is important to note that students now use a variety of devices to receive and review their assignments. Some functionalities may not be visible by students when using devices such as tablets or mobile phones to open the marked assignment.

To insert a comment using Word, the marker should highlight the source of the error in the text (click on Insert then New Comment from the drop down menu) and link the comment to the error. For example, in the first paragraph of Figure 6 above, the citation is highlighted and linked to a comment about the need to include the page number for the quotation. This shows the student where to insert the information required. Alternatively, this could be addressed with a general comment at the end of the essay about formatting citations. The type of comment should be consistent with the purpose of the feedback. For example, if a session has previously been conducted on how to cite and reference sources then the feedback only needs to point to where this should have been applied.

If the student has provided the assignment in another format such as a .pdf, the concept is the same but the steps of the process occur in a different sequence and have different labels. In Adobe Acrobat, click on the Comment button at the top right of the document screen and select Sticky Note. Then click on the location where the comment should be linked. Using this option the user cannot select a portion of text so the Highlight Text function should first be used to specify the relevant text and then the Sticky Note function be used to insert a comment. More complex editing of .pdf documents such as changing word, inserting punctuation, or moving paragraphs is not possible if using the free Adobe Reader software.

3.7 Mark the assignment using marking worksheet or rubric

When using a marking worksheet there are 2 main approaches to including the marks. The first is to have the marks for all levels included in the template and then the marker just needs to highlight the mark that applies. This is useful if the marks vary from criterion to criterion. The second approach, as illustrated in Figure 7 below, is to leave the mark cells blank and insert the mark into the appropriate cell as required. The benefit of this approach is that it is easier to format the worksheet to automatically calculate the total. Some markers may wish to prepare the worksheet in a spreadsheet format and then insert it into the Word document. Sections within the worksheet could also be subtotalled if this information was required for input into learning management systems. Using Figure 7 content as an example, marks for Physical Presentation and Quality of Argument could be subtotalled to give an overall mark for that attribute.

Figure 7. Using a Marking Worksheet to Mark Assignments

Marking Scheme

Criterion	Weight %	PHYSICAL PRESENTATION						
			Mark					
Format	2	Well formatted					1	Poorly formatted
Length	2	Reasonable length			3			Under word limit
Sources	6	Sources acknowledged appropriately		4				Sources not acknowledged
Citation	4	Correct citation of sources		4				Sources not cited
		QUALITY OF ARGUMENT						
Relevance	25	Argument is relevant to the topic	5					Argument does not address the topic
Depth	25	Depth of argument is appropriate		4				Argument lacks depth – no integration or critique
Errors	4	Argument is free of errors		4				Argument contains significant or fundamental errors
Logic	10	Argument is developed logically	5					Argument lacks coherence
Support	8	Effective use of data, tables, figures and/or examples to support the argument	5					Absence of supporting data, tables, figures or examples
Total								

Comments

A rubric can also be used in a number of ways for marking as illustrated in Figure 8 below. In the first row of this rubric, the range of marks available for each standard of quality is indicated in the cells. Lecturers can highlight the applicable cell and then highlight or bold the relevant mark. This saves the marker from having to remember how many marks are available in each cell. The second row shows a similar option wherein the values that are not relevant are deleted, leaving the mark allocated to the student in the cell. In the case in Figure 8, the numbers 13, 15, and 16 were deleted. The third row shows the appropriate cell being highlighted but the mark inserted next to the available marks in the first column. A separate column for the mark could also be inserted next to the criteria, which would have the added advantage of making it easier to automatically calculate the total mark. It is important to consider the number of keystrokes required when designing marking processes. Although an additional step in the process may not seem much for one or two assignments, greater efficiency is definitely appreciated by markers who have large numbers of assignments to mark.

When using either a worksheet or a rubric for marking, consideration should be given to how informative it will be for the student. Markers should also consider including an overall comment which focuses on the student’s achievement toward addressing the topic question/statement.

Figure 8. Using a Rubric to Mark Assignments

RUBRIC

Criteria	Excellent	Very good	Good	Un-satisfactory	Poor
Completed required tasks correctly (10 marks)	Completed all tasks very thoroughly and correctly 9 9.5 **10**	Completed all tasks thoroughly and correctly 7 7.5 8 8.5	All tasks completed, correct 5 5.5 6 6.5	Completed all tasks mostly correctly 3 3.5 4 4.5	Does not complete tasks, incorrect responses 1 1.5 2 2.5
Application of selected course content (theory) and analysis (20 marks)	Relevant theory is carefully selected and applied in depth to develop a very well thought out and analytical report 17 18 19 20	Carefully selected relevant theory is applied in some depth to develop a very good report 14	Relevant theory is selected with some application to develop a good report. Could have more analysis 9 10 11 12	Some relevant theory is included but is mainly described, not applied. May try to cover too much, or not enough theory 5 6 7 8	Little or no course content (theory) is included. No application or analysis 1 2 3 4
Academic processes *Reference technique* in body and list (APA or AGPS Harvard according to GBS Resources Bank). *Writing:* comprehensible, expression, grammar, spelling, no colloquialisms; no discriminatory language. Good *paragraphing* (10 marks) **6**	Excellent attention to detail, correct, consistent academic process with few if any errors. Very well written.	Very good attention to detail correct, consistent academic process with few errors. Well written.	Good attention to detail and correct, consistent academic process with a few errors	Some attention to detail and correct, academic process with some errors	Needs more attention to detail and a lot more correct, consistent academic process. Too many errors

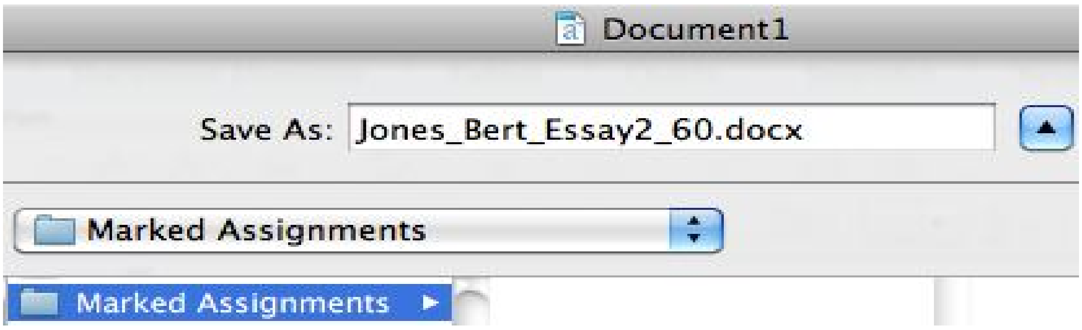
Total Mark (out of):

Comments (if any):

3.8 Save the marked assignment

Once the assignment has been marked and feedback comments inserted along with the completed marking worksheet or rubric, the assignment should then be filed in a separate folder with the mark included in the filename. In Word the marker would click on File from the drop down menu, then Save As, and give the file a name such as *Jones_Bert_Essay2_60.docx* as illustrated below in Figure 9*.* This indicates the name of the student, the piece of assessment, and the student's mark in the filename. The student number may also be included if known e.g. *Jones_Bert_s12345678_Essay2_60.docx.* This enables the marker to easily transfer the marks to a spreadsheet without having to open each file one at a time to find the mark. Some markers prefer to enter the marks as they go however this is a naming convention and also allows the student to see their mark at a glance when the assignment is returned.

Figure 9. Save the file using SaveAs function



3.9 Return the marked assignment or forward for moderation

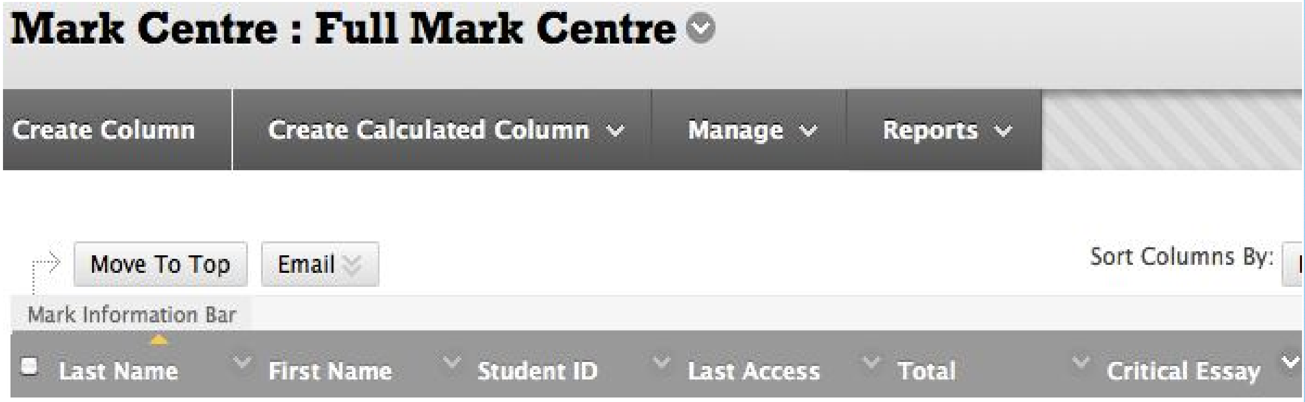
Electronic marking makes it faster to return assignments to students and alleviates the problem of having a bundle of uncollected assignments from students who only want to know their mark and are not interested in getting the assignment back. The assignments can be emailed to students from the marker's email account or returned through the email function in the learning management system. In some universities there is also the capacity to upload assignments into shared storage spaces such as Dropbox and GoogleDrive for collection by the student. Whatever the process used, there is certainly a greater number of options available to markers when using electronic marking.

One of the major benefits for the marker is the ease with which they are able to select and forward the required number and type of assignments to colleagues for moderation. The marker can scroll through the folder containing the marked assignments and select a couple from each grade point for forwarding to a colleague along with the assignment requirements and marking criteria. Comment banks can also be shared between markers to ensure a level of consistency in the feedback given to students.

3.10 Record the marks

The final stage of electronic marking is recording the results and ensuring they are available in the university's learning management system. This is illustrated in Figure 10 below. As indicated earlier, this may be undertaken simultaneously with the marking process as some markers prefer to record the results as they go. Other markers prefer to mark and then record the results later.

Figure 10. Example of Mark Input Screen in Blackboard Learn



If moderation of assessment is required then markers may prefer to record marks on an interim spreadsheet and upload the final marks after the moderation process has been completed. Using an interim spreadsheet allows the lecturer to analyse the range of results and compare the consistency across markers. If the results are entered directly into learning management systems then analysis can be done in class or tutorial groupings. However, if marking is shared between markers by allocating assignments in bundles by student surname or by splitting classes then it is more difficult to obtain data on the consistency of marking across markers.

4. Conclusion

In conclusion, there are a number of advantages and disadvantages to electronic marking using simple functions available in word processing software. While electronic submission and marking of assignments saves paper and is faster and more efficient, a number of issues have been raised above in relation to the steps involved. Illustrations have been used to show that these issues can easily be addressed through the creation of well-developed rubrics and comment banks. Using electronic marking as outlined above will support the development of high quality, consistent, and time-efficient marking processes.

5. Appendix A

The 10 steps in the generic e-Marking process.

STEP	PROCESS
1	Submit assignments as Word documents
2	Download assignments and check for originality
3	Open the marking criteria worksheet or rubric
4	Insert the worksheet or rubric into the assignment
5	Generate or open a relevant comment bank
6	Annotate the assignment with comments
7	Mark the assignment using marking worksheet or rubric
8	Save the marked assignment
9	Return assignment to student or forward for moderation
10	Record marks

NOTES