

# Richer Fuller Feedback for Essays

Wesley Kerr  
Paul McLaughlin

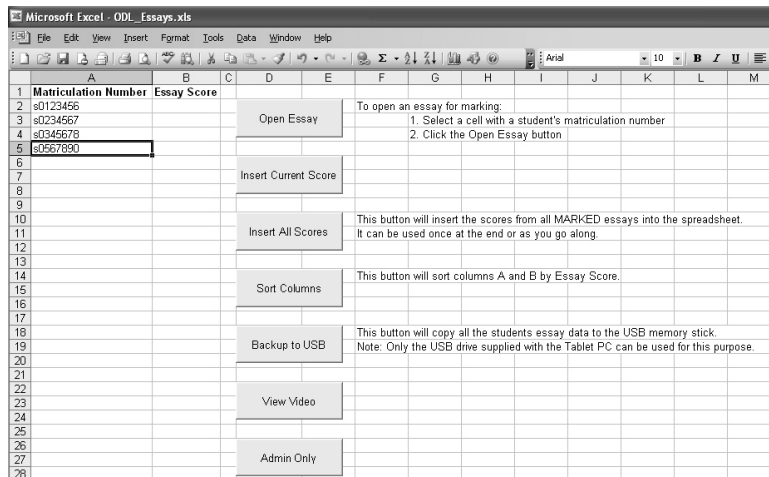
25 April 2008

## Implementation of eMarking Tablet PCs chosen for marking scripts



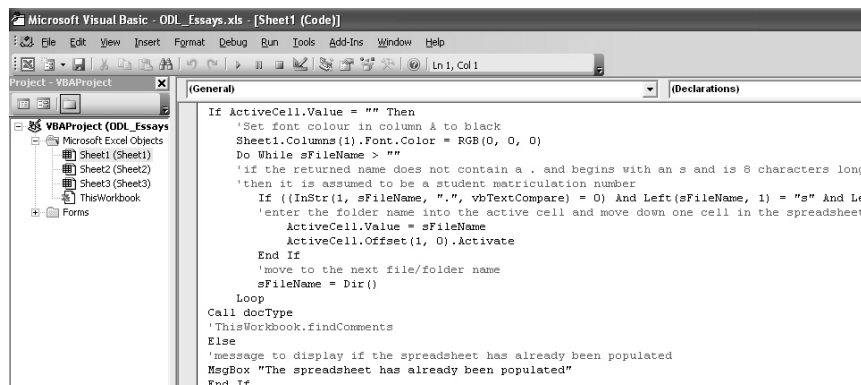
25 April 2008

# Implementation of eMarking Workflow and marking based on MS Office



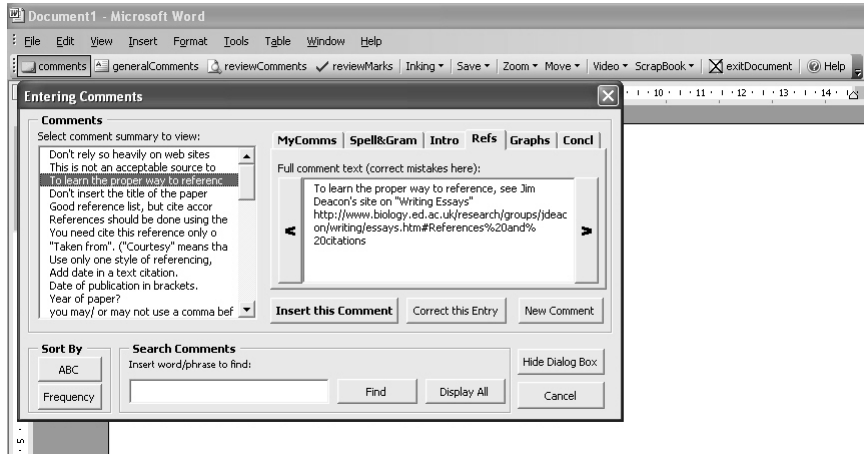
25 April 2008

# Implementation of eMarking Workflow and marking based on MS Office



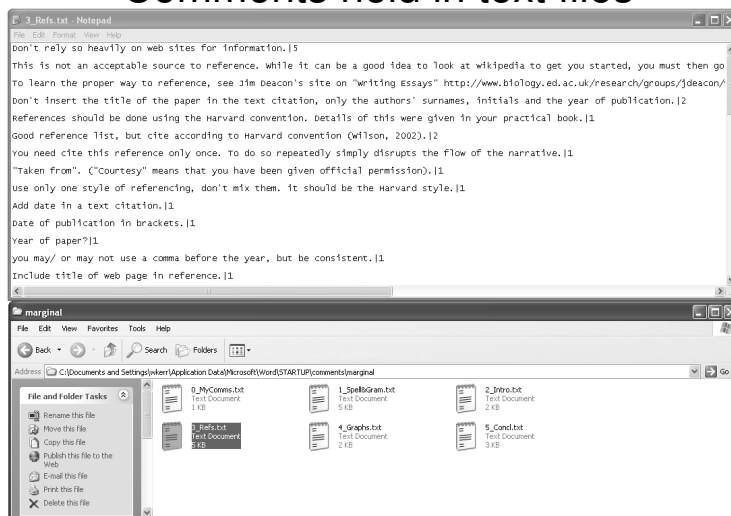
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# Description of Marking Tool Controlled from a toolbar in Word



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# Description of Marking Tool Comments held in text files



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# Description of Marking Tool

## New comments captured as they are made

In order to answer the question of why living organisms are so diverse, it is essential to first define the term diversity. [The United Nations Convention on Biological Diversity] defines it as "the variability among living organisms from all sources... and the ecological complexes of which they are part. It is also important to recognize that there is much variation both between species and within them. Diversity between species is vast; however there is evidence to suggest that some different species have evolved from a common ancestor (such as the pentadactyl limb). Biological diversity can be put down to many factors, most of which have

**Diverse?**

**Comment [A1]:** You have not referenced this source in your reference list.

**Comments**

Select comment summary to view:

- This reference is not cited in the text.**
- Not relevant to the essay.**
- This is better! your are writing mo**
- This is better! You are now address**
- http://www.ed.ac.uk**
- Please use British spelling.**

Full comment text (correct mistakes here):

This reference is not cited in the main text.

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# Description of Marking Tool

## Existing comments can be amended

**MyComms | Spell&Gram | Intro | Refs | Graphs | Concl**

Full comment text (correct mistakes here):

Don't rely so heavily on web sites for information.

**Insert this Comment | Correct this Entry | New Comment**

**MyComms | Spell&Gram | Intro | Refs | Graphs | Concl**

Full comment text (correct mistakes here):

Don't rely so heavily on web sites for information.  
The majority are not peer reviewed.

**Insert this Comment | Correct this Entry | New Comment**

Original comment

Amended comment

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# Description of Marking Tool

## Can make more expansive comments

Genetic mutations are the most important reasons for diversity. They can occur naturally by failure or error in meiosis or, more importantly, DNA replication (Bertram J (2000) "The molecular biology of cancer" *Mol. Aspects Med.* 21). Also, mutations can come from exposure to radiation or mutagenic agents such as hazardous chemicals. The result of changing the DNA sequencing has a certain effect on the allele of the gene, whether it changes the product of a gene or inhibits it from functioning altogether (Burns V, Waldor M (2004). "Shaping bacterial genomes with integrative and conjugative elements" *Res. Microbiol.* 155 (5): 376-86). When a mutation occurs in an organism, it genetically changes said organism, resulting in a changed characteristic. If this change is favourable though, the organism will likely pass this mutation to its offspring through natural selection. Mutations are not always advantageous to the organism, rather it is highly unlikely that a mutation will benefit the organism. Cancer is one form of mutation in *Homo sapiens* which will kill the affected individual. Organisms are not continuously mutating as the result would most likely be negative, but certain mutations can prove useful functions such as immunity to disease.

**Comment [A3]:** Don't insert the title of the paper in the text citation, only the authors' surnames, initials and the year of publication e.g. (Bertram, J., 2000)

**Comment [A4]:** Not if it is a silent mutation.

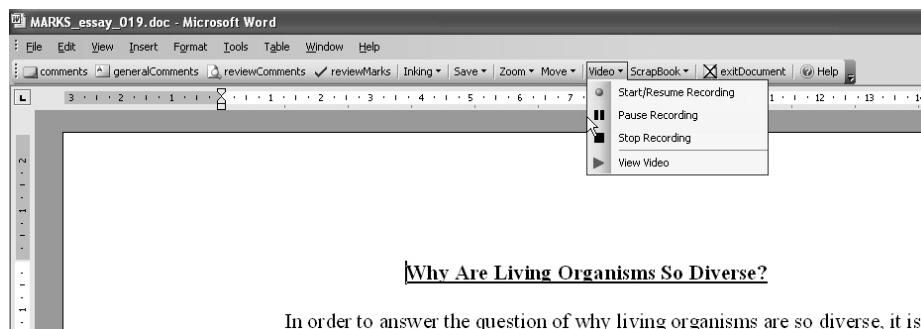
**Comment [A5]:** Expand this theme. What sorts of mutations do you get?

**Comment [A6]:** Be careful not to make generalised comments in a scientific essay. Cancer can arise from many forms of mutation, and may kill the affected individual.

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# Audio-Visual Comments

## Screen capture software (Camtasia)



Audio-visual example from a postgraduate marker

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## Who is Using it?

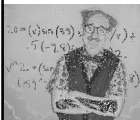
- **Biology**
  - First year course (~500 students)
  - Third year course (~80 students)
- **Economics**
  - First year course (~350 students)
- **Engineering**
  - Mixture of first and second year (~80 students)
- **Divinity (Semester 1 2008)**

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**Student**



**Course Admin**



**Dr. A**



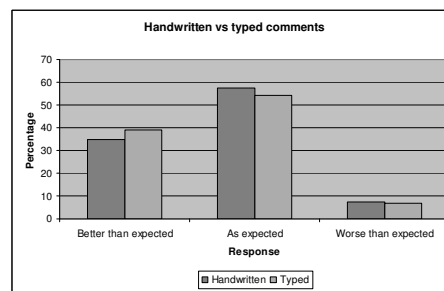
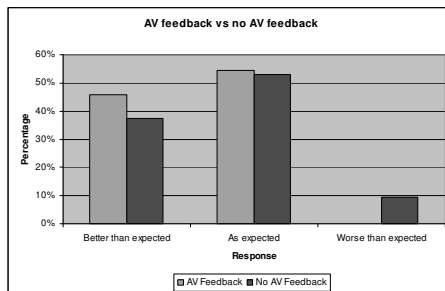
**Prof. B**

**Markers**

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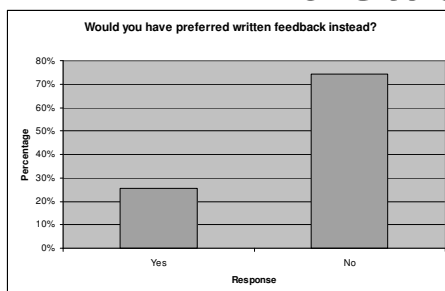
# The Student View

Quality of feedback is better for AV



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# The Student View



"I was ok with just the written feedback as the video feedback was exactly the same."

"...unless I was speaking to them in person, it is the same as getting a comment on paper."

"My video feedback was only one sentence."

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"...the points and overall mistakes of the essay were better conveyed in the video feedback..."

"I thought it was very useful, it made me look more critically at the essay..."

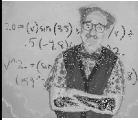
"...it was very helpful and made the work more rewarding."

"It made the marking process a lot more personal and individually specific to me..."

"Next best thing to personal communication."

"...compared to other courses it was outstanding! "

**Student**



**Dr. A**



**Prof. B**

**Markers**

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**Student**

•Avoids Scrums



**Dr. A**



**Prof. B**

**Markers**

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# Avoids Scrums



"the best thing about the electronic one is that you didn't have to sort through all the paper to get to your essay. Because there are so many essays, they're just out there and they all get messed up really quickly and it's really hard to find yours."

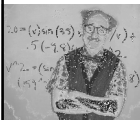
"it's good because it keeps it private as well. You don't have to go with lots of people and pick up your essay, and then they go 'oh what did you get', you know you don't have to answer"  
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## Student

- Avoids Scrums
- Readable



## Course Admin



Dr. A



Prof. B

## Markers

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# Readable

ducing organisms is disadvantaged  
they have survived to fill many

s have become so diverse are  
nefit different organisms are to be  
re created many new species, with  
the longer an organism survives:  
l themselves to a greater extent  
f artificial speciation, and that  
:d.

Comment [A17]: This is not true. If you were to measure 'success' i.e. dominance (see comment 2 in common pitfalls) by the number of individuals or the number of species reproducing sexually or asexually, then asexually reproducing organisms are far more dominant. Also, some asexually reproducing organisms such as bacteria are able to adapt much more quickly than sexually reproducing organisms, due to much shorter generation times.

Comment [A18]: Reference?

Comment [A19]: Species

Comment [A20]: Teleological

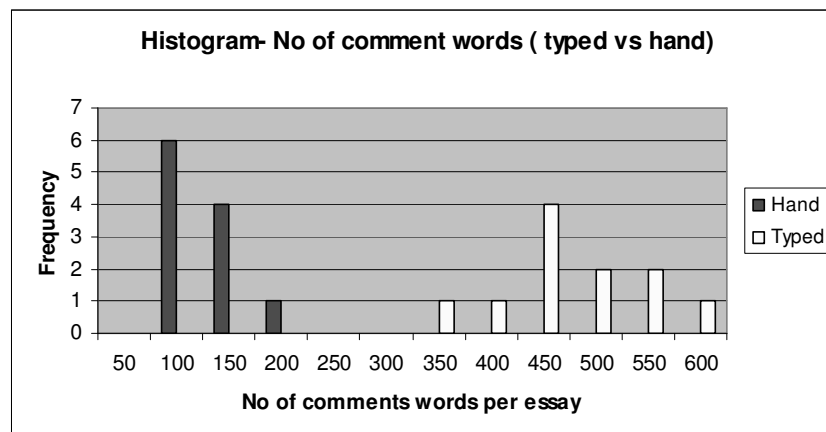
“you can access your results anywhere, which is really useful.”

*“It would be good to make all the comments typed, or at least make the markers write in capitals, as I could not decypher the handwriting of my marker.”*

“I really really like we got for the ODL essay because throughout the actual essay, you had a lot of commentary on the side of your essay so you could relate to where you'd gone wrong. It was really good”.

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# Typed comments more discursive




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## Student

- Avoids Scrums
- Readable
- Follow On Action






## Course Admin



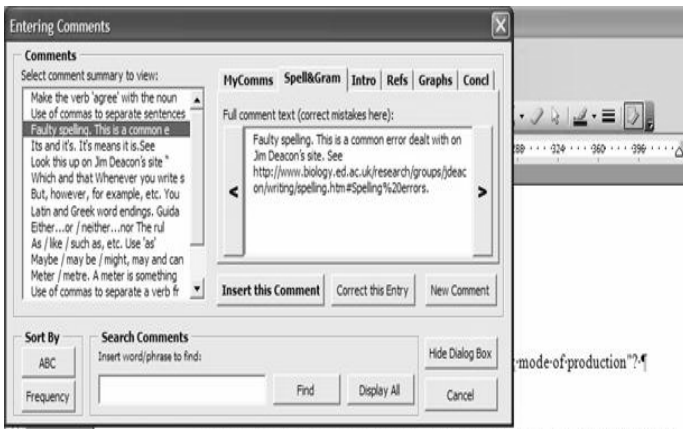
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**Prof. B**  
**Markers**

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# Follow on action



mode-of-production"?¶

Karl-Marx and Fred Engles were socialists who wanted to have a revolution. Conditions for workers were not so good as they worked hard in the nineteenth century. This was when Marx and Engles lived. They said capitalism was the problem and that workers should revolt because they had nothing to lose but their chains.¶

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# Follow on action

Spelling - some commonly misspelt words

Correct	Wrong (or, at least, not what you meant!)
accommodation, accommodate	accomodation
acknowledge	aknowledge
acquire	aquire
address, addressed	adress
affect (verb - to influence something) (see also effect further down this list)	effect (as a verb) - when you affect (verb) something you cause an effect (noun)
attach, attached	attatch, attached
beginning	begining
changeable	changable
carnivorous (and herbivorous, omnivorous)	carniverous, herbiverous, omniverous
conceive	concieve
currant (present, now)	currant (a thing you find in a bun)
deleterious	deliterious
dependent (this is a participle - something is dependent on something else; e.g. children are dependent on their parents)	dependant (but correct as a noun - a person who depends on another; e.g. children are dependants)
desert (a dry place)	dessert (not a dry place) something you eat in a pretentious restaurant

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# Follow on action

WebCT The University of Edinburgh

Build Teach Student View ISIS (Information Skills and IT skills)

Your location: Home Page

Welcome to ISIS  
Information Skills and IT Skills

ISIS is a resource intended to help you find stuff that you need to know, but which is not discipline specific. It is not a course that you are required to follow, there are no compulsory assignments; it is just stuff which we hope is useful. If you have ideas about other topics which should be included here, or suggestions of specific resources, then please post feedback at the bottom of this page

<p><b>Finding reading materials</b> Route Planner to help with Literature Searches</p>	<p><b>Writing</b> Grammar, Punctuation and Academic Writing</p>	<p><b>Understanding Plagiarism</b> University-wide course developed across several institutions</p>	<p><b>FEED BACK</b> Send Anonymous Feedback on ISIS For giving private feedback on ISIS to the developers.</p>
<p><b>Citing</b> How to reference different types of sources in different situations.</p>	<p><b>Keeping Your Work Safe</b> Developing Good Housekeeping Practices including Security and Virus Prevention.</p>	<p><b>Communicating Online</b> Picking the right medium, differences between different media, which to use when.</p>	<p><b>FEED BACK</b> Post Feedback and Discuss ISIS This link leads to open discussion areas</p>

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## Follow on Action

- Interviewer: “Did you go back to your **video** feedback?”( for the next essay)
- Student: “I definitely went back. Already when I got the feedback, I **took notes** from the video feedback so that I have notes for my future essays.”

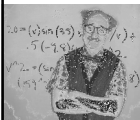
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### Student

- Avoids Scrums
- Readable
- Follow On Action



Course Admin



Dr. A




Prof. B


**Markers**

25 April 2008


## Student




- Avoids Scrums
- Readable
- Follow On Action



## Course Admin



**Dr. A**



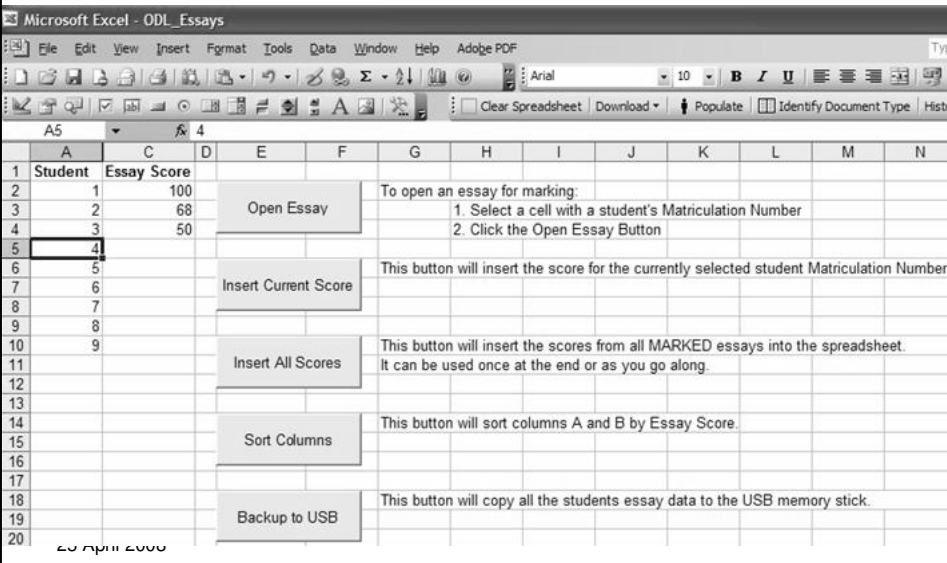
**Prof. B**

## Markers

- Time and Motion

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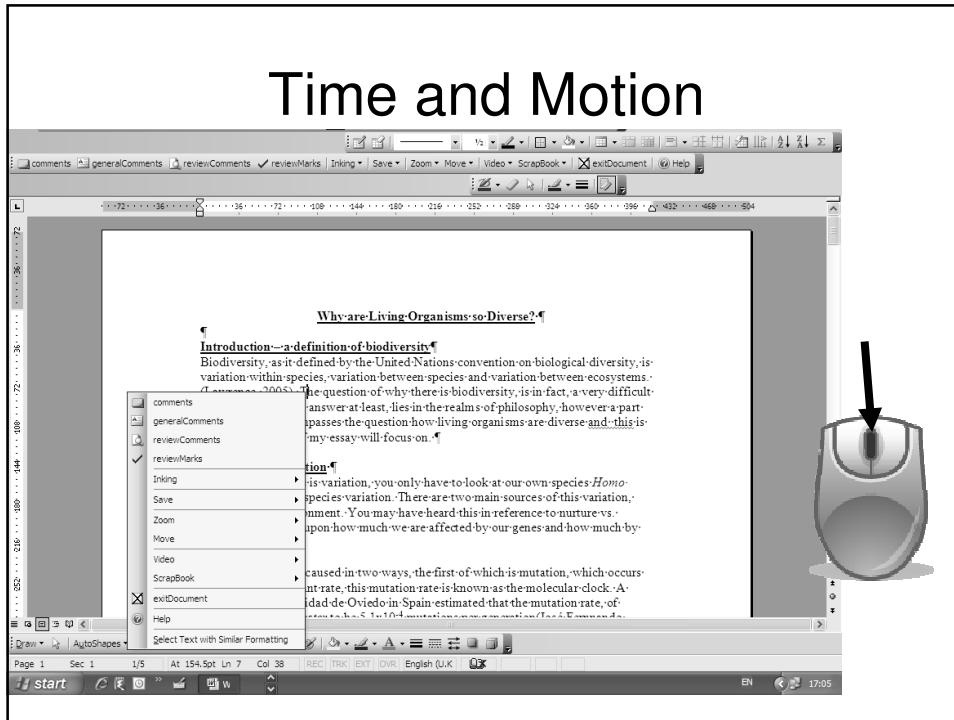
# Time and Motion



Student	Essay Score												
1	1	100											
3	2	68	Open Essay	To open an essay for marking: 1. Select a cell with a student's Matriculation Number 2. Click the Open Essay Button									
4	3	50											
5	4												
6	5												
7	6		Insert Current Score	This button will insert the score for the currently selected student Matriculation Number.									
8	7												
9	8												
10	9		Insert All Scores	This button will insert the scores from all MARKED essays into the spreadsheet. It can be used once at the end or as you go along.									
11													
12													
13													
14			Sort Columns	This button will sort columns A and B by Essay Score.									
15													
16													
17													
18			Backup to USB	This button will copy all the students essay data to the USB memory stick.									
19													
20													

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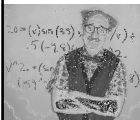
# Time and Motion



## Student



## Course Admin



Dr. A



Prof. B


## Markers


- Time and Motion

- Flexibility for different marking styles


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**Student**






**Course Admin**



**Dr. A**




**Prof. B**


**Markers**

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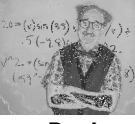
- Time and Motion
- Flexibility for different marking styles
- Record (reflection)

**Student**






**Course Admin**



**Dr. A**



**Prof. B**

**Markers**

25 April 2008

- Readable
- Avoids Scrums
- Follow on Action
- Minimise boring tasks
- Set up – Learning Technologists
- Time and Motion
- Flexible for different marking styles
- Record (reflection)



# Which is the tablet?

## FULLER, RICHER FEEDBACK, MORE EASILY DELIVERED, USING TABLET PCS.

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(paul.mclaughlin@ed.ac.uk), Institute of Molecular and Structural  
Biology, Michael Swann Building, Mayfield Rd, Edinburgh, EH9  
3JR, 0131-6507060

### Abstract

We have developed a method to use tablet PCs to enable markers more efficiently to give written feedback on students' work. Comments may either be made in handwriting, or typed, or may be presented in type following handwriting recognition. Additionally, any comments so made can be stored and reused, allowing for editing. Importantly, feedback can be made richer by including forward links for students to follow up on common mistakes that they have made so that their engagement with feedback is more constructive. Such feedback would otherwise be very tedious to provide if marking on paper was used exclusively.

We have run this system successfully for two years to mark essays in a large class of 450+ students, using twenty markers. This volume of work was efficiently handled and involved no paper. Checking of marks and assuring consistent standards was much more easily done than with paper.

We consulted students and markers. Students take the system in their stride. They are well able to provide essays, with diagrams and figures. Markers fell into a number of groups. We have learned that there is a variety of marking styles and developed the software to accommodate these. The only software required is Microsoft Word and Excel.

### The problem addressed

Good quality feedback is the most single powerful influence on student achievement in higher education (Hattie, 1987). But a number of surveys with students shows that satisfaction with feedback on assessment is the least of all areas considered. (Hounsell et al, 2005, Krause et al, 2005, Surridge, 2006, Hounsell et al, 2007). Several reasons contribute. Too long a gap between submission and feedback is detrimental and a source of dissatisfaction (Gibbs & Simpson, 2004) Crook et al (2005) have evidence from focus groups that students sometimes simply cannot read a marker's

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*"there is a variety"*

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# Acknowledgments

- Principal's e-Learning Fund
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- Karen Howie
- Nora Mogey, Russell Standard (Westminster)
- Linda Hu (Biology), Qi Zhu (Education)

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