

**Science Learning and Teaching
Conference
Heriot-Watt University
Edinburgh 16-17 June 2009**

Student perceptions of feedback in science
and technology

Paul Joyce

Peter Lumsden

UCLan Feed Forward project 2006 and 2008

'Feedback Experience Questionnaire' (FEQ)

('Formative Assessment in Science Teaching' (FAST)
Sheffield Hallam and the Open University)

Faculty of Science and Technology

'Large' 2nd year module from each Department or
School

UCLan Feed Forward project 2006 and 2008

- **quantity and timing** of the feedback
- the **quality** of feedback
- **use** students make of feedback

Quantity and timing of feedback on this degree :

- a) I get plenty of feedback on how I am doing.**
- b) The feedback comes back very quickly.**
- c) There is hardly any feedback on my assignments when I get them back.**
- d) When I get things wrong or misunderstand them I don't receive much guidance in what to do about it.**
- e) I would learn more if I received more feedback.**
- f) Whatever feedback I get comes back too late to be useful.**

Quality of feedback:

- a) The feedback clearly relates to the learning outcomes specified for the assignments.**
- b) The feedback helps me to understand things better.**
- c) The feedback shows me how to do better next time.**
- d) Once I have read the feedback I understand why I got the mark I did.**
- e) I don't understand some of the feedback.**
- f) I can seldom see from the feedback what I need to do to improve my work.**

What you do with the feedback:

- a) **I read the feedback carefully and try to understand what the feedback is saying.**
- b) **I use the feedback provided to go back over what I have done in the assignment.**
- c) **The feedback has not helped me with any subsequent assignments or examinations.**
- d) **I would make more use of the feedback if there was an opportunity to discuss it in class with other students and the tutors.**
- e) **The feedback prompts me to go back over material covered earlier in the programme.**
- f) **I have not used the feedback for revising.**
- g) **When I get work back I tend to only read the marks.**

Findings Summary

- Respondents were **generally satisfied**
- **Difference in satisfaction** levels between large and small class sizes - **gap closing**
- Picture across the faculty was **complex**

Complexity

- **significant levels of dissatisfaction**
- **different levels of satisfaction** for the quantity and timing, quality and use of the feedback
- **Written comments** expressing dissatisfaction

Complexity

- **Big v small class sizes**
- **Written comments.** What kind of students have made comments

Homogeneous subsets for quantity and timing

Module	Subset for alpha = .05	
	2	1
School A	2.3251	
School B	2.4177	
School C	2.5337	
School D		2.9844
School E		3.0889
Sig.	.491	.928

Homogeneous subsets for quality

Module	Subset for alpha = .05	
	2	1
School A	2.3751	
School B	2.6458	2.6458
School C	2.6697	2.6697
School D		2.7500
School E		2.9167
Sig.	.114	.175

Homogeneous subsets for use of feedback

	Subset for alpha = .05
	1
School A	2.7870
School D	2.8033
School C	2.8367
School B	2.9135
School E	2.9986
Sig.	.286

Lateness of feedback during last semester was horrendous as the same/similar questions cropped up in the exam as for the assignment and so we have not understood the question or topic, we don't have a clue. But even then when we did receive our assignments there was no feedback so I don't know where I have gone wrong for next years module! We never have meetings with tutors and these would be very useful!

Some lecturers provide very limited feedback on assignments with very generic comments, with no clear explanation as to where marks were lost or could be gained.

It is difficult to use feedback for subsequent assignments because there is so much inconsistency between markers, based on each marker's personal preferences rather than what is in the marking criteria. Sometimes feedback is barely legible. Feedback should be received quicker, for it to be useful.

Group Statistics for written feedback

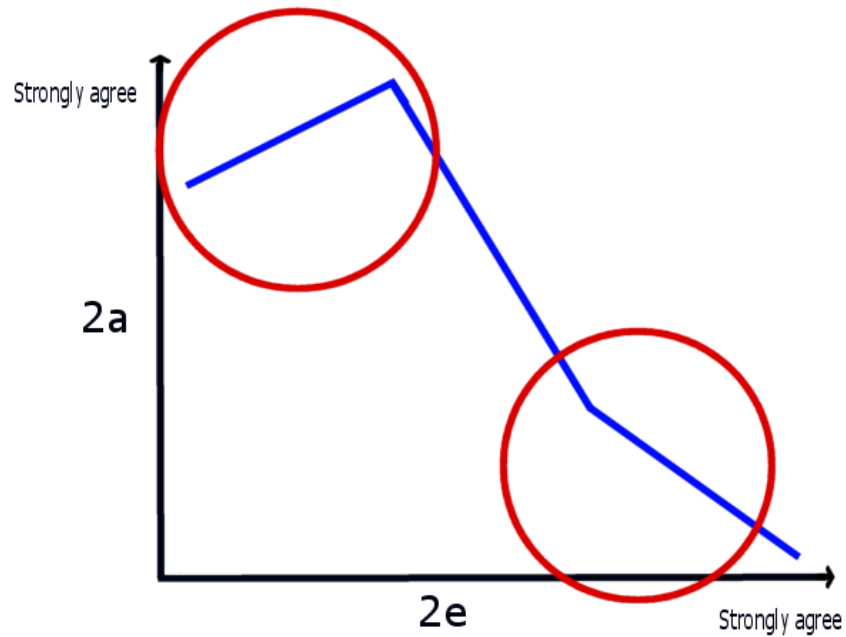
	Extra comments, written feedback	Mean	Std. Deviation	Std. Error Mean
QuantTiming	no	2.6143	.48049	.04135
	yes	2.3587	.47292	.05389
QualFeedback	no	2.6607	.43822	.03786
	yes	2.5039	.44196	.05037
UseFeedback	no	2.8007	.37652	.03241
	yes	2.9123	.35824	.04083

All above results significant $p < 0.05$

Plot of mean scores

2e 'I would learn more if I received more feedback'

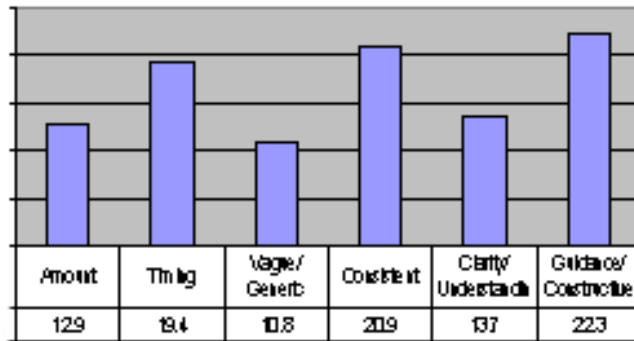
2a 'I get plenty of feedback on how I'm doing'



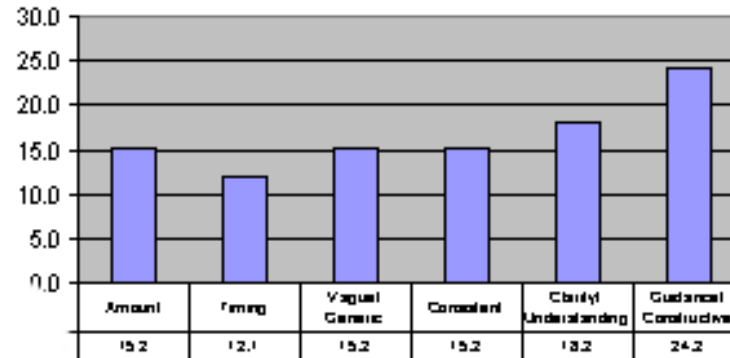
Themes in written comments

- **Amount of feedback**
- **Timing of feedback**
- **Generic feedback**
- **Inconsistent feedback**
- **Understanding feedback**
- **Guidance/ constructive feedback**

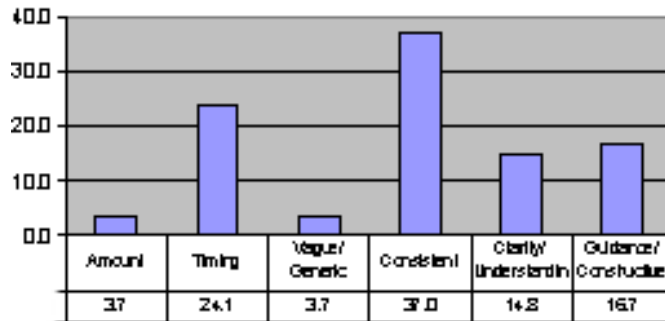
A



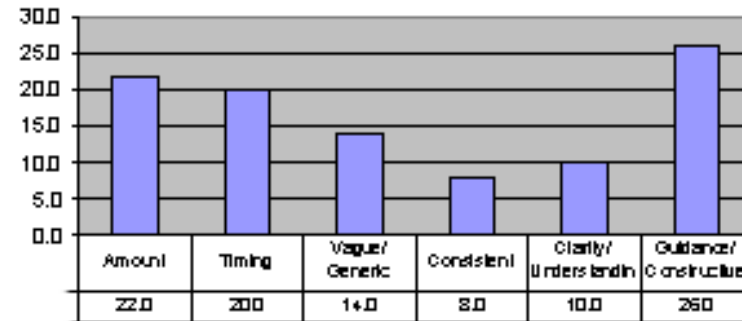
School B



School C



School A



Conclusion?

- **Students instrumental in their thinking**
- **Students as 'consumers'**
- **Are students aware of all types of feedback**
- **Organisational structures at micro-level influence feedback satisfaction**
- **Conflict with central policy?**