

How formative feedback enhances the student learning experience

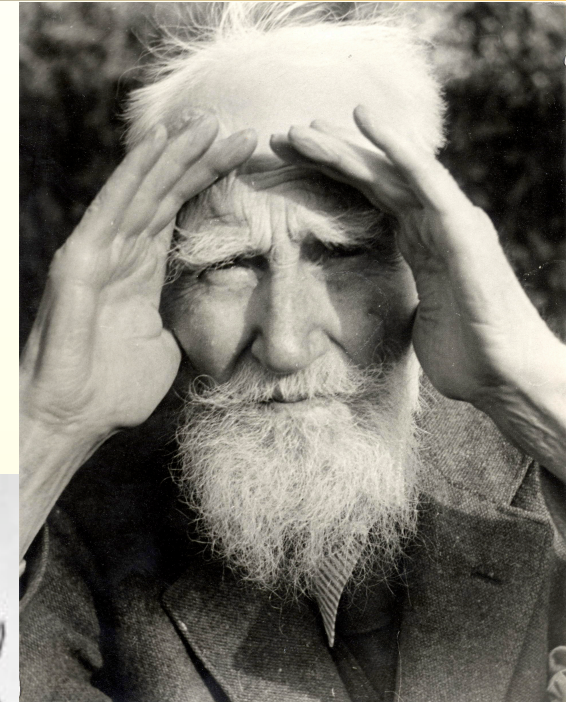
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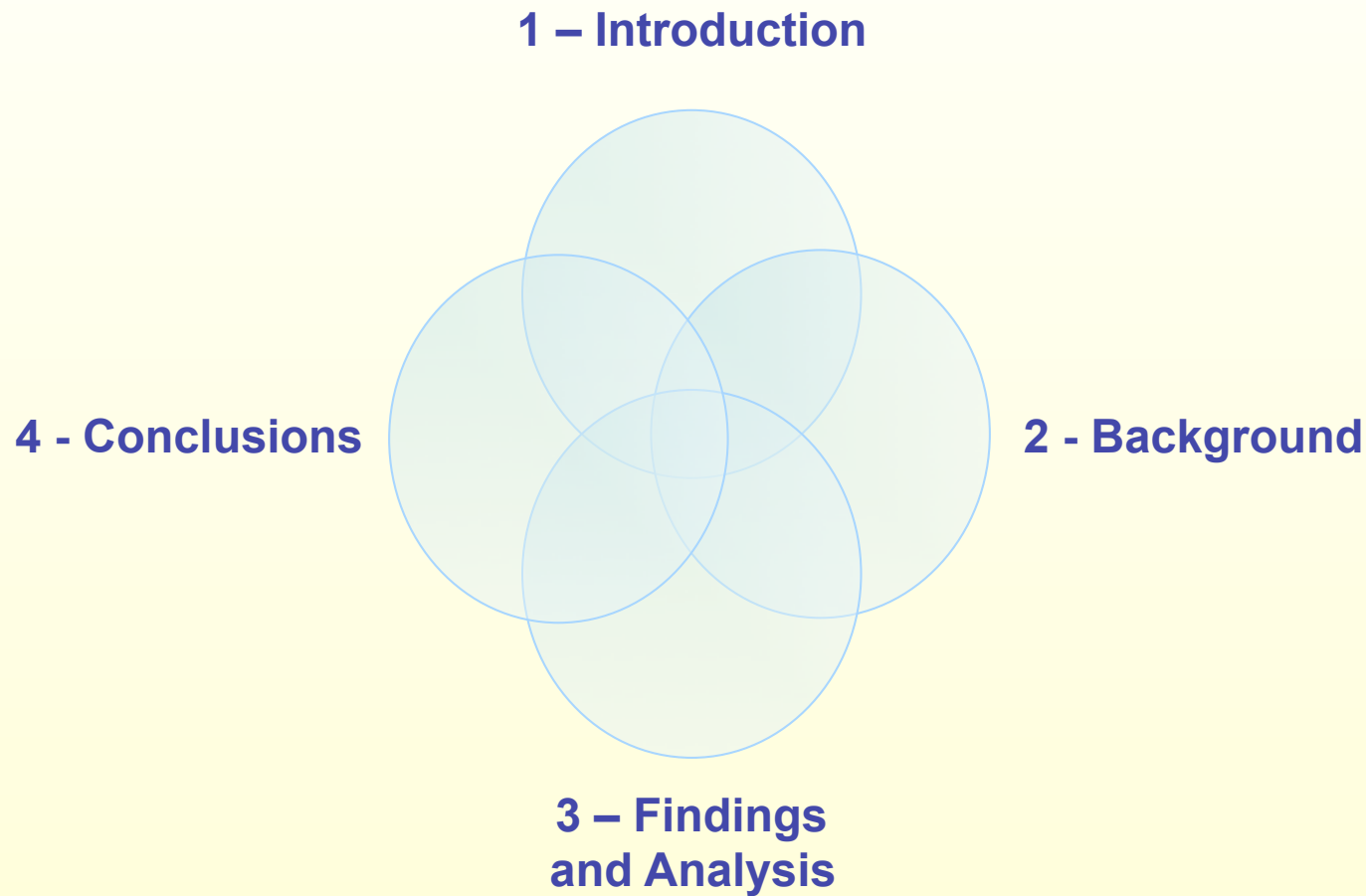
The United States and Britain: two nations divided by a common language



Shape of this talk

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Introduction

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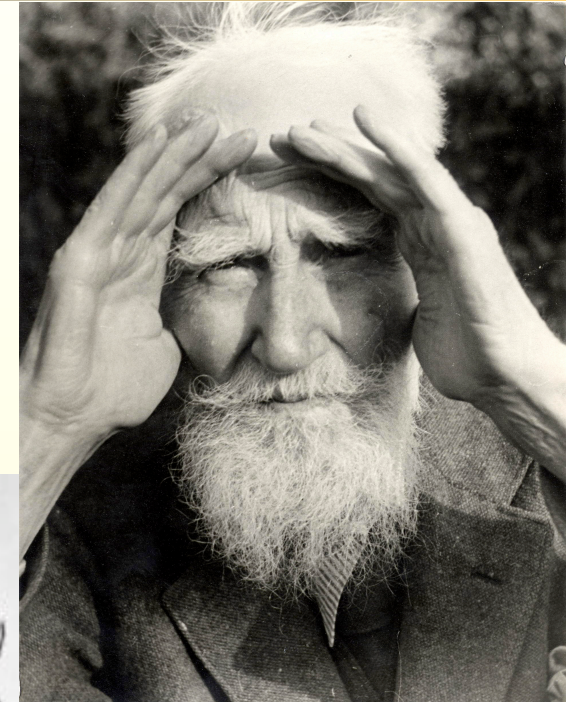
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The United States and Britain: two nations divided by a common language



What we mean by assessment...

Measuring students' performance

Assessment can be

- Summative – counting towards final marks
- Formative – shaping learning, providing feedback
- Diagnostic – telling the teacher or the learner something about their existing capabilities/competencies
- Integrative – combining some of the above functions; embedded into the learning/instruction process underway

Two nations divided by a
common language

Please interrupt me if you are anxious about what I am saying

Assessment impacts on learning

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We can enhance the benefit for students
if we distinguish between

Awarding Marks



providing feedback

Feedback and reflection on Routes to Success Portfolios:
Creating the third portfolio is an exercise designed to guide students through an exercise of self-reflection and evaluation. Skills of critical self-appraisal can be very constructive, and can be used to help plan future approaches to study, and identify any problems which may benefit from early intervention (e.g. seeking assistance from the mentoring service attending support workshops, focussing on building language skills).

Among the students who completed the portfolio and attended the interview, marks ranged from 98% for a few of the very best students, to 10% for the majority of students who had weaker writing skills to demonstrate insight possible to get a full 100%.

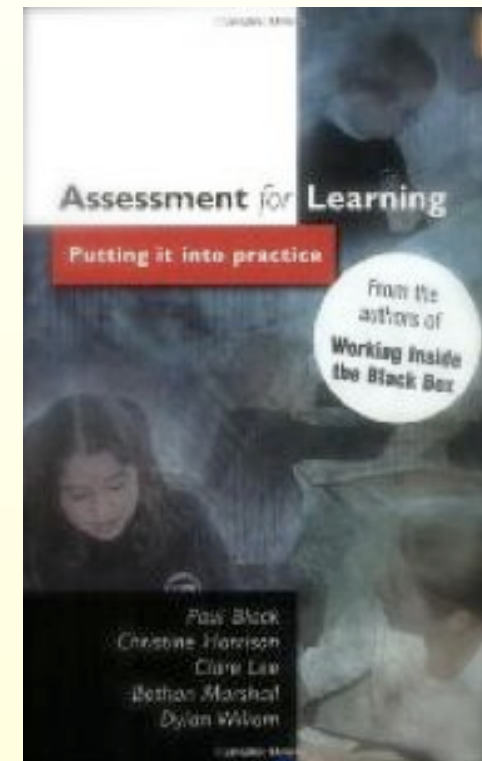
In the best cases students worked hard and demonstrated during the interview that their effort was rewarded. In this type of assessment, students who had weaker writing skills to demonstrate insight possible to get a full 100%.

Many students, including those who had less extensive recordings in the portfolio, were able to identify some issues, and were able to use these observations as a means of identifying future plans.

Some students either experienced difficulties, or did not think the exercise particularly important. In these instances, the contents of the portfolio were not large (occasionally people tried to mask this by making the font larger!). In these instances, the contents were often descriptive, rather than analytical.

A few students may have taken a cursory approach to the activity. This may not have been a good strategy, since marks were available, and potentially wasted. A very few students tried to attend the interview without a portfolio. They were not interviewed. No mark was awarded.

It seems that the interview has acted as an incentive to complete the task, and I appreciate those students who made an effort to engage with the activity. I hope by completing the portfolio, and attending the interview, you have been able to gain some insights into your behaviours and academic performance. Reflection does not have to be undertaken in such a self-conscious written form (although the current fashion for blogs is an example of this in general use). However, you find time to reflect in future, I hope that you will be able to build on this activity to your advantage in your future studies in whichever manner works best for you.



Assessment impacts on learning

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students will benefit if we keep these two activities
separate and distinct



separate
and
distinct

providing feedback

Feedback and reflection on Routes to Success Portfolio:
Sustaining Success

Creating the first portfolio is an essential step in the journey through an academic career. It is a chance to reflect on your achievements and to plan for the future. The portfolio is a collection of evidence that you have gathered over time, and it is a chance to show your progress to your tutors and to yourself. It is a chance to reflect on your learning and to plan for the future. The portfolio is a collection of evidence that you have gathered over time, and it is a chance to show your progress to your tutors and to yourself. It is a chance to reflect on your learning and to plan for the future.



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P. Black, C. Harrison, C. Lee, B. Marshall, and D. Wiliam, *Assessment for Learning: Putting it into Practice*. Milton Keynes: Open University Press, 2003

The feedback debate

Issues

- timeliness of feedback
- quality of feedback
- use of feedback in feed-forward
- student engagement with feedback

very little research into the impact of feedback on

- student learning
- student achievement
- little consideration given to the ways in which students engage with formative activities or formative feedback.

Our Question

- *Can formative feedback enhance student learning and academic achievement?*

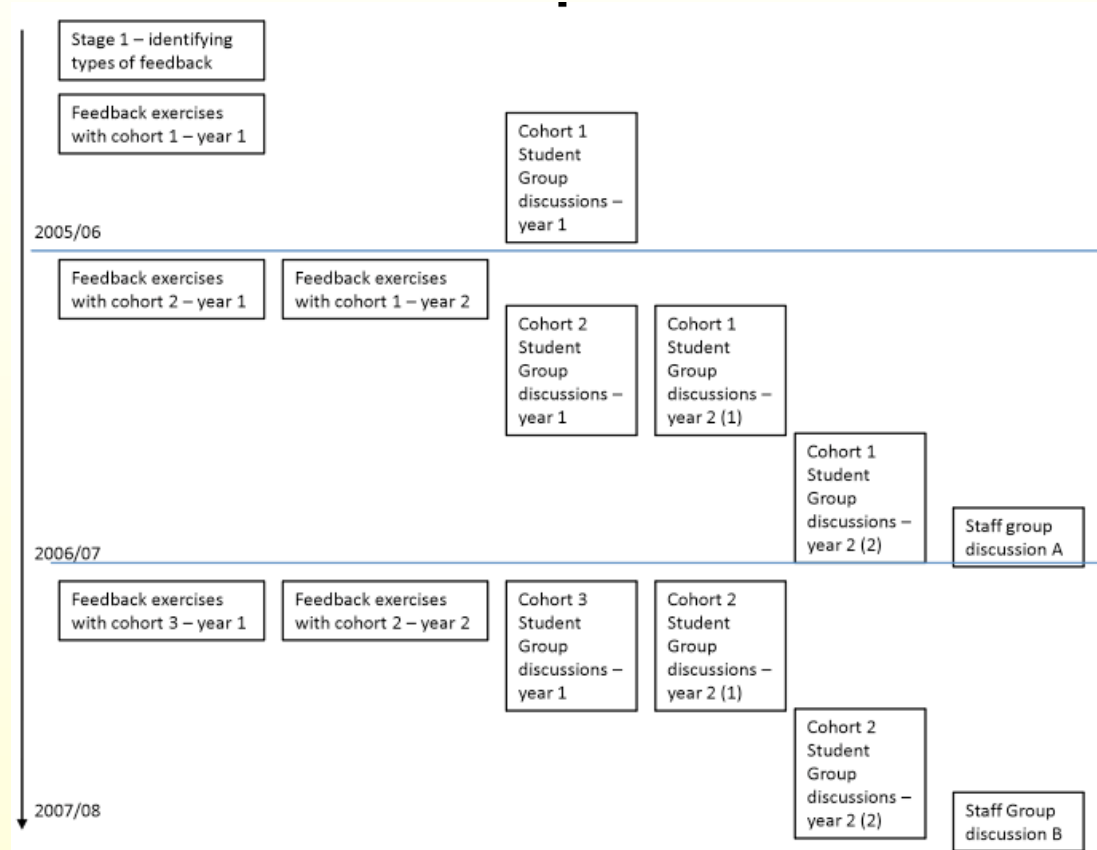
Mixed methods research

Single institution – teaching intensive

... this type of work has not previously been reported on in an engineering institution

- case study (small data set; researcher involvement)
 - Student Survey – quantitative and qualitative data
 - Triangulation data
 - focus group interviews
 - Staff survey
- Some additional data from academics has been collected, not specifically cited in this presentation

Overview of data collection



Our total set of samples

The sample for the case studies

- 3x
 - year 1 cohorts of both computer forensics and computer science (6 student groups)
- 2x
 - year 2 computer forensics cohorts (2 student groups).

The initial data gathering included all undergraduate computing students in the School (population – 482 students)

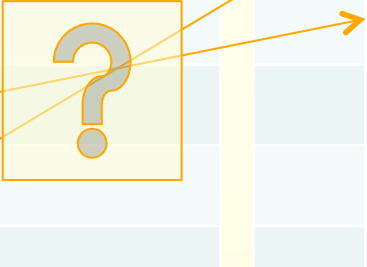
- Baseline
- indication of what was important in terms of feedback for students

This case

- Interventions wanted for progression and retention
- Primary researcher a closely involved academic
- Seeking changes to enhance institutional reputation
 - Student attainment
 - Student feedback (national rankings)
 - Broader context institutional wide initiative for interventions

This case students' ranked perceptions feedback received free list (n=31)

Most useful		Least useful	
a	Suggestion for future work	a	No feedback
b	Suggestions for additional marks		
c	Easy to understand comments		
d	Pointed out mistakes		
e	Work with comments		
f	Grade		
g	Sample solution		
h	Written comments		
i	Identifying where marks lost		



Translate the loves and hates

- Considered the freely identified items
- Translated them into classroom interventions
- Asked students to rank their preferences

Students' perceptions feedback wanted – voted list

	Ideal feedback
	examples
	Mix of written and verbal feedback
	Talk with tutor face to face
	Comments on mistakes
	Personalised feedback
	Positive criticism
	Annotated scripts

How feedback might be achieved

- Issues data
 - Small data set
 - Little variability
 - Nothing of statistical strength

Solutions

- Time intensive

Ranking the interventions

Faculty data

- Survey
- Focus group discussion



Category	Ranking	
	Student	Faculty BFS
Comment future changes to improve	2	1
Question specific comments re. errors	3	2
Annotated comments on script	5	3
Comment on errors, subject specific	4	4
Generic comment on errors: structure, grammar etc	1	5
Model solution	6	6
Mark only	7	7
No feedback	8	8



BFS = Best for student

Faculty's reflections

- Front page vs inline comments
- Perceived constraints of departmental policy
- Intention
 - Helpful
 - Feed forward
- Surprise
 - Students' perception of judgemental feedback
- Perceived Issues
 - Workload
 - Timing->workload
 - Time factors undermining quality of feedback
- Aspire
 - Face to face -> costly in time
 - Potential innovations - anxieties

Conclusions – perhaps not surprising

- Faculty have a different view of feedback to students
- Practice does not always match faculty's aspirations
- Students' preferences would incline to want to be given the solutions (sticky plaster/band aid approach to problem??)
- Dialogue between faculty and students might enable transition in student views
 - We can expect student views and preferences to become modified as they move through their education
- Further work,
 - examining students responses and changes in responses after purposeful feedback
- But dilemma since each year we have a new set of students
 - This in itself argues for feedback for learning



Thank You ☺

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Acknowledge:

Contributions of colleagues and
students who participated in
the surveys and discussions

Questions?



References

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