ENHANCING LEARNING AND TEACHING IN HIGHER EDUCATION

Dai Hounsell

University of Edinburgh
The pitfalls and challenges of 'trying something new', and what can help to make it a success ...
WHEN WE'RE 'TRYING SOMETHING NEW' IN OUR TEACHING

Why do we [and our colleagues] often "not get it right first time"?

We've learnt about a new idea for teaching or assessing our students that seemed to work well somewhere else, but when we try it out in a course we teach, it just doesn’t have the impact we'd hoped for...

And consequently, perhaps:

- we give up (because 'something just didn't seem to work')?

- or not even bother to think about innovating, because trying to do 'new things' is so risky and difficult?
WHEN WE'RE 'TRYING SOMETHING NEW' IN OUR TEACHING

And more generally, and more constructively, when we're trying 'something new', how can we help ourselves to make it a success?

Equally, when our colleagues are trying something new, how can we help them to make it a success?

Dual perspectives

- the innovating practitioner
- the 'academic developer'/'learning technologist'/'supportive colleague
DUAL PERSPECTIVES

DOCTOR GLAS AND PASTOR GREGORIUS
ON NOT GETTING IT RIGHT FIRST TIME
ON NOT GETTING IT RIGHT FIRST TIME

The writer and chemist Primo Levi (best known for If This Is a Man)

The Periodic Table [Periodiska Systemet] blends fiction, autobiography and scientific understanding. Each 'chapter'/story takes one of the elements of the periodic table as a theme.

In 'Potassium', he describes how, keen to gain work as a lab assistant in the early years of the Second World War, he had tried to purify benzene.

Unable to find the sodium the instructions called for, he substituted potassium, "sodium's twin", with explosive consequences.

He draws this moral from the incident:
"[...] Man måste vara misstrogen mot det snarlika (natrium är snarlikt kalium, men med natrium skulle ingenting ha hänt), mot det praktiskt taget identiska, mot det ungefärliga, mot "eller också", mot alla surrogat och alla lappverk. Skillnaden kan vara liten men resultatet bli ett helt annat, som det av en omlagd järnvägsväxel; kemistens yrke består till stor del i att akta sig för dessa skillnader, i att väl känna till dem och förutse deras effekter. Men det gäller inte bara kemistens yrke."

Levi, P. *Periodiska Systemet*. (p. 61)
ON NOT GETTING IT RIGHT FIRST TIME

In higher education, shouldn't we also be wary of *det snarlika* (the almost-the-same), *the det praktiskt taget identiska* (the practically identical)?

[Yes, I'd argue, because it's often the reason why we 'don't get it right first time']

But the analogy can only stretch so far.....

In Primo Levi's chemistry lab, the problem was not having the right 'element'; (if he had had it, the experiment could have succeeded).

In higher education, by contrast, there's no simple 'right element': we have to contend with **contingency** — the diversity and almost endless variability of circumstance

Yet are the challenges of contingency sufficiently recognised?
THE SEARCH FOR 'WHAT WORKS' AND 'BEST PRACTICE'

- Rising interest in evidence-based practices and policies
- But risks of narrow focus in systematic reviews (Davies, 2002) on meta-analyses and 'effect sizes'
- Underlying search for 'what works' and for 'best practice' that is open to question
Table 3: Ranking of effects relevant to higher education

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<tr>
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THE SEARCH FOR 'WHAT WORKS' AND 'BEST PRACTICE'

An example

- **Synthesis** of "over 800 meta-analyses, including about 250+ million students, 50,000+ studies, about 150,000 effect-sizes, from early childhood through adult education, in the search for what works best (Hattie, 2009)."

- **Hattie's conclusions**:
  1. 'Almost everything works'
  2. 'What works in schools, also works in universities'.

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Questioning Hattie's conclusions:

- The phenomenon of 'publication bias'
- Extrapolating from the school system to a much more diversified universities sector
- The challenges of contingency
"In the case of educational research, its objects of study (people, cultures, national systems) are not timeless objects where a finding at one particular time can be assumed to hold in the same way at another place or at another time when different contexts hold."

(Yates, 2003, p. 3)

"Part of the difficulty in developing a better understanding of the student experience is the assumption that research has to produce particular types of large-scale, generalisable finding. And yet current research into learning in other areas of education increasingly points to the need to understand phenomena in context; to recognise that situations differ, and are specific, and that specific problems need particular answers."

Haggis (2006) p. 20
THE CHALLENGES OF CONTINGENCY

The many-sided contingency of educational practices

DIMENSIONS OF VARIATION:

- by subject area or discipline
- by level of study
- by organisational culture (university/faculty/department/programme)
- by sector and system
- over time
**THE EXAMPLE OF FEEDBACK**

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NU2010, Dialog för Lärande, University of Stockholm, 13-15 October 2010
CONTINGENCIES OF FEEDBACK
What is 'feedback' in higher education?

- Feedback comprises information, processes, activities or experiences which aim to encapsulate, enable, consolidate or boost students' learning.

- Feedback can focus on:
  - **attainment**: what a student knows, understands or can do at a given point in time
  - **progress**: where a student currently stands in relation to a specified goal, target or level
  - **achievement**: what a student has achieved as demonstrated in a completed assignment or task
CONTINGENCIES OF FEEDBACK

What forms does / can feedback take?

- pro forma
- written comments
- exemplars
- exams
- guidance
- feedforward
- traditional
- collaboration
- on-display learning
- peer
- audio
- past questions
- screencast
- whole-class
- clickers
- in-class assignments
- cumulative
- editing
- using feedback well
- elective
- self
- co-revision
- e-feedback
- redrafting
- reviewing progress
- criteria
- dialogue
- supervision
- interaction
- new
- briefing
- involvement
- faster feedback
- model answers
- training
- video
- online
## CONTINGENCIES OF FEEDBACK

### The who, where and when of feedback

- **Sources of feedback**
  - Lecturers, tutors, demonstrators, supervisors, mentors
  - Fellow-students / peers, a student’s own reflections
  - The audience for a seminar or poster presentation, professional practitioners

- **Feedback where and when?**

<table>
<thead>
<tr>
<th>Formally</th>
<th>Informally</th>
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<tbody>
<tr>
<td>In timetabled classes / online</td>
<td>Outwith timetabled classes / offline</td>
</tr>
<tr>
<td>Intrinsic</td>
<td>Extrinsic</td>
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<tr>
<td>Prior to a task or activity</td>
<td>During a task or activity</td>
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CONTINGENCIES OF FEEDBACK

What purposes can feedback have?

1. correction
2. justification of grade
3. encouragement
4. achievement-raising
5. acceleration
6. debugging
7. refinement
8. connoisseurship
9. debate and dialogue
CONTINGENCIES OF FEEDBACK
The disciplinary dimension

- **Diversity** in types of assignments and assessments across disciplines and subject areas

- Distinctive *ways of thinking and practising* in a discipline or subject area
  (e.g. McCune and Hounsell, 2005; Hounsell and Anderson, 2008)

- "Signature pedagogies"
  (Shulman, 2005)
Taking an Evidence-Informed Approach to Innovating

HOW CAN PUBLISHED RESEARCH AND SCHOLARSHIP HELP?
TRYING SOMETHING NEW

How can research and scholarship help address contingency?

- [Scale, extent, frequency/incidence]
- Conceptualising
- Dissecting and modelling
- Problem-setting and trouble-shooting
- Value of grounded, discipline-specific accounts of practice
HOW RESEARCH & SCHOLARSHIP CAN HELP WITH CONTINGENCY

1. Conceptualising feedback

- Feedback as a dinosaur practice, poorly adapted to contemporary mass higher education
- Feedback as a 'loop' or 'cycle'
- Feedback as dialogue
- Feedback as developing connoisseurship
- Feedback as formative assessment
HOW RESEARCH & SCHOLARSHIP CAN HELP WITH CONTINGENCY
conceptualising feedback as a loop (Hounsell, et al. 2008)

1. STUDENTS’ PRIOR EXPERIENCES OF ASSESSMENTS IN THE SUBJECT/IN THE UNIT
   - feed-forward into next assignment/assessment

2. PRELIMINARY GUIDANCE ABOUT EXPECTATIONS & REQUIREMENTS

3. ONGOING CLARIFICATION OF EXPECTATIONS
   - submit assignment

4. FEEDBACK ON PERFORMANCE/ACHIEVEMENT
   - review feedback

5. SUPPLEMENTARY SUPPORT

6. FEED-FORWARD i.e. DEPLOYMENT OF ENHANCED UNDERSTANDING AND/OR SKILLS IN SUBSEQUENT ASSESSMENTS
   - embark on assignment
HOW RESEARCH & SCHOLARSHIP CAN HELP WITH CONTINGENCY
conceptualising feedback as connoisseurship

feedback as developing a grasp of discipline-specific expectations, conventions and standards
(e.g. Sadler, 1989, 2010; Hounsell, 2007)

"[Students] need to learn to discover what quality looks and feels like, and the aspects – whether large or small – that detract from it. They need to develop a vocabulary for expressing and communicating what they find. Furthermore, they should gradually attune their growing realisations and discourse to the norms of the discipline, field or profession"

(Sadler, 2010)
### Feedback as a loop
- cumulative and feed-forward assignments
- draft-comment-revise

### Feedback as connoisseurship
- exemplars
- collaborative assignments
- peer feedback
HOW RESEARCH & SCHOLARSHIP CAN HELP WITH CONTINGENCY

2. Dissecting and modelling feedback (Beaumont et al. 2008)
HOW RESEARCH & SCHOLARSHIP CAN HELP WITH CONTINGENCY

3. Problem-setting & troubleshooting (Hounsell et al. 2008)
HOW RESEARCH & SCHOLARSHIP CAN HELP WITH CONTINGENCY

3. Problem-setting & troubleshooting (Hounsell et al. 2008)
HOW RESEARCH & SCHOLARSHIP CAN HELP WITH CONTINGENCY

3. Problem-setting & troubleshooting (Taylor, 1986)
THE VALUE OF 'ACCOUNTS OF PRACTICE'

Getting in touch with 'grounded', discipline-specific practices
GENRES IN THE INNOVATIVE ASSESSMENT LITERATURE (Hounsell et al. 2007)

A Typology of Genres

- Empirical Study
- Account of Practice
- Compendium (of evolving practices)
- Commentary/Opinion Piece
- Guidelines
- Guide to Professional Practice
- Policy Document
- Evaluation
- Enhancement Project
- Review of the Literature
- Theory/Conceptualisation
GENRES IN THE INNOVATIVE ASSESSMENT LITERATURE (Hounsell et al. 2007)

Research-oriented literature

- empirical studies
- theory/conceptualisation
- enhancement projects
- reviews of the literature
- evaluations

Practice-focused literature

- accounts of practice
- guidelines
- guides to professional practice
- compendia of evolving practices
- commentary/opinion pieces
GENRES IN THE INNOVATIVE ASSESSMENT LITERATURE (Hounsell et al. 2007)

Research-oriented literature
- empirical studies (n=74)
- theory/conceptualisation (51)
- reviews of the literature (14)
- enhancement projects (19)
- evaluations (7)

Practice-focused literature
- accounts of practice (n=141)
- compendia of evolving practices (7)
- guidelines (13)
- enhancement projects (19)
- guides to professional practice (9)
- commentary/opinion pieces (4)
SUBJECT-SPECIFIC GROUNDED EXAMPLES


• Compares 183 first and honours years Biology students’ responses and performances after receiving two types of feedback, that provided by model answers and that provided by personal comments


• In first-year undergraduate Biology, self and peer assessment of poster assignments were combined using student constructed marking criteria with exemplars


• Screen capture was used to create video feedback to Bioscience students on their assignments, as a way of helping students not to misinterpret written comments
Enhancing Feedback

For Staff
- Time-friendly ways to boost feedback
- Ideas, strategies and case examples
- Feedback in your subject
- Feedback FAQs for staff

For Students
- Making feedback work for you
- Other resources for students
- Feedback FAQs for students

Feedback at Edinburgh
- How the University is improving its feedback to students

www.tla.ed.ac.uk/feedback.htm
How can feedback be improved?

- Involving students in feedback
- Engaging with criteria
- Peer feedback
- Self-generated feedback
- Co-revising assignments
- Editing and redrafting
- Peer feedback
- Optimising feedback in postgraduate supervision

- Briefing and training of students
- Elective feedback
- Helping students use feedback well
- Informing students about feedback

- Interacting with students
- Refining traditional feedback
- Assessing dialogues
- Feedback loops in undergraduate projects

- Refocusing written comments
- Faster feedback
- Pro forma feedback
- Guidance to staff on giving feedback
- Exemplars, model answers and past questions
- Giving feedback on exams

- Plugging gaps in feedback
- Feedback on feedback
- Pre-submission guidance and feedback
- Collaboration as a source of feedback

- Reshaping curricula and assessment
- New ways of giving feedback
- Whole-class feedback
- Online and e-feedback

- Recycling written comments
- Audio and video feedback
- Screencasts
- Feedforward assignments

- Feedback-rich assignments
- Practices on feedback
- Variety, challenge and feedback
- In-class assignments

- Closing the feedback loop
- Closing the feedback loop
CONCLUDING SUMMARY
SUMMARY

- Trying something new in university teaching is challenging: we often don't 'get it right first time'

- 'What can work' is highly contingent and variable

- So we need to be alert to contingencies ...
  ... and ready to adapt to local and subject/disciplinary needs and circumstances

- An 'evidence-informed' approach also has a role to play. Published research and scholarship can:
  - help us to conceptualise, model, troubleshoot
  - provide subject-specific, 'grounded' examples which can clarify possibilities and options
"Professionals operate in complex situations which have multiple solutions to problems, usually without the benefit of an obvious best choice. Rarely do professionals encounter discrete problems in practice and meaningful solutions have to be derived from the situatedness of the problem in a specific context."

(Kandlbinder, 2007, p. 162)

Educators cannot simply apply evidence without taking into account the circumstances in which it was created and in which they operate: they have to make evidence-informed professional decisions regarding their practices."

REFERENCES


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Sadler, R. (2010). 'Beyond feedback.' QAA Assessment Enhancement Seminar, Queen Margaret University, Edinburgh, 29 Sept 2010
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