Assessment and Feedback
In the hands of the student

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`Focus of presentation

- Cognitive processes required for assessment and feedback to support learning
- Written assignments and feedback
Purpose of feedback

- Feedback should develop the students’ capacity to make *evaluative judgements* about their own and others work (Boud and Associates, 2010: Cowan, 2010; Sadler, 2010)

- Feedback should serve the function of progressively enabling students to better *monitor, evaluate and regulate their own learning*, independently of the teacher (Nicol and Macfarlane-Dick, 2006: Nicol, 2009)
The question is not just how do we improve use of teacher feedback but rather *how do we harness and strengthen inner feedback processes?*

[see Nicol, 2009]
Cognitive processes

For feedback to be support learning, and develop evaluative judgement, two cognitive processes must be elicited:

1. **Evaluation** - students must reflect on and evaluate their own work in relation to a feedback input. Evaluation is necessary if students are to identify gaps, misconceptions, errors, structural deficiencies, other perspectives, weaknesses in the work they produce.

2. **Knowledge building** - students must use the feedback they generate from these evaluative processes to repair misunderstandings and construct a better understanding. This entails knowledge building.
Terminology

- I will use the following term borrowed from Roscoe and Chi (2008) to represent both processes of evaluation and knowledge building:
  
  **reflective knowledge building**

- Three scenarios briefly examined in relation to reflective knowledge building and evaluative judgement - (i) teacher feedback, (ii) self-review and (iii) peer review.
Teacher feedback in higher education

- Students are less satisfied with teacher feedback than with any other aspect of their course (National Student Survey UK)
  - feedback is not timely
  - feedback is not detailed
  - feedback did not clarify things I did not understand
Some Institutional Remedies

- Faster turnaround times for assignments
- Electronic feedback, including audio feedback
- Feedback calendars to clarify timings
- Improved feedback rubrics/criteria
- More attention to providing corrective advice
- Feedback on exams
- Awareness raising campaigns to highlight student role in feedback
- Etc.
Cognitive processes in use of teacher feedback

- **Decode** feedback messages and internalise them
- **Evaluate and compare** them against own work
- **Identify** discrepancies, misconceptions, alternative views, gaps in work
- **Revise and reconstruct knowledge** based on the inner feedback that these processes generate
- **Transfer** this revised understanding to new contexts and tasks
Practical strategies

1. Students evaluate/respond to comments - put them in own words and say what will do about it
2. Sequence assignments so that feedback is used - drafts and redrafts
3. Multi-stage projects and overlapping tasks
4. Patchwork text - different texts ‘stitched’ together.
5. Reflection on teacher feedback (R. Ajjawi, Univ of Dundee)
6. Ipsative feedback (G. Hughes, Institute of Education)

Technology: Recording comments and responses so that both teachers and students can easily revisit earlier feedback
Guiding principle of good teacher feedback

Guiding principle in educational policy documents

- *Teacher feedback should be planned in ways that ensure that students are provided with explicit opportunities to evaluate it and act on it.*
Questions and Discussion
Self-review and reflective knowledge building

Definition of self-review

Self-review is a scenario where students make evaluative judgements about the own work and produce a written feedback commentary.
Self-review and reflective knowledge building

The rationale for self-review

1. The purpose of feedback is to develop the students’ capacity to make evaluative judgements of their own work, without help of external agent.

2. Developing this ability would arguably make students better at using teacher feedback

3. Some research suggests that the more feedback teachers give, the more dependent some students become.
Cognitive perspective

- Long history of cognitive research on self-review type activities
- Chi’s (2000) studies on self-explaining. She asked learners to explain their understanding of a text they were reading. Found that this forced them to monitor and evaluate their own understanding
- Students identified gaps in their knowledge (missing links, misconceptions, incorrect assumptions, procedural errors) and constructed inferential knowledge to fill those gaps.
- Significant learning gains shown thro’ self-explaining
Limitations of current self-review practices

- Self-review usually discussed under self-assessment
- Research has been on students ability to mark own work and correlations with teacher marks. This is less important than providing commentaries.
- Commenting has been about identifying strengths and weaknesses in relation to marking criteria - this is too narrow a focus.
Enhancing knowledge building thro’ self-review

The criteria for self-review activities

- Most professional judgements are not linked to marks. Hence broader scope needed for criteria if goal is development of evaluative judgement (i.e. critical thinking)

1. Evaluate work from reference points that go beyond those used to produce the work (making holistic judgements)

2. Evaluation criteria tap into disciplinary thinking - relative judgements

3. Students formulating their own criteria for judgements.
Questions and Discussion
Feedback in employment settings

Professional practice and life beyond college and university

1. Feedback never comes from a single source: task is usually to evaluate, weight up and reconcile and respond to different and sometimes contradictory feedback perspectives.

2. Professionals are not just ‘consumers’ of feedback but also ‘producers’
Peer review

Definition of peer review

- Peer review is a process whereby students make evaluative judgements about the work of peers and provide a feedback commentary.

- In peer review students produce and receive reviews.

- By peer review I do not mean peer-assessment: ‘marking’ can often undermine the positive benefits from commenting.
Cognitive perspective: receiving reviews

- Same processes as receiving teacher feedback. However, there is invariably opportunity to rewrite - hence to evaluate and act on feedback.
- Activation of principle discussed earlier under teacher feedback
- Not surprisingly benefits found: greater variety of feedback, more timely, easier to understand.
However...

Not enough attention has been focused on the potential of peer feedback not just as a way of increasing the quantity and quality of the feedback students receive, but also as a way of giving students practice in making evaluative judgements and constructing feedback.

See Nicol (2010) Developing students’ ability to construct feedback. Available at: http://www.enhancementthemes.ac.uk/resources/publications/graduates-for-the-21st-century
Cognitive perspective: producing reviews

- Students have already produced work so have already engaged in many acts of evaluation
- When asked to review they compare and evaluate the peer work against an internal representation of their own work (their internal standard of quality)
- Hence, in reviewing, students almost always reflect back on their own work: with the feedback they generate informing that work
- Criteria for review: framework for commenting

JISC funded peer project: [www.reap.ac.uk/PEER.aspx](http://www.reap.ac.uk/PEER.aspx)
Results: learning from PROVIDING feedback

Please give examples of what you learned from PROVIDING peer reviews of other’s work (n=47)

- How to look at work critically that isn’t your own [critical judgement]
- When giving advice to people on theirs, it gave me greater perception when reviewing my own work by listening to my own advice for example [transfer]
- I was given a greater understanding of the level of the work the course may be demanding [standards]
- Allowed me to see from an assessors perspective
Focus groups

- How did you go about reviewing?

‘I read it through and compared it with what I had done to see if they had put something I had not done and then I added it in if they hadn’t. The four questions...[provided by the teacher]...were useful as they provided a framework for the review. If we hadn’t had the questions it would have been difficult. I did the reviews separately and then answered one then the other. The first was a better standard than the other - so I used the ideas from the better one to comment on the weaker one. I also read the guidelines in class when I did the peer review. There were ideas from the good one that I hadn’t even thought of in mine’
Focus groups

What do you think is best for learning - giving or receiving feedback?

‘For me it would probably be to give feedback because I think seeing what other people have done is more helpful than getting other people’s comments on what you have already done. By looking at other people’s work you can see for yourself what you have forgotten or not even thought about. When people give feedback on yours they generally just talk about what is there. They don’t say, well I did this on mine and you could put that in yours.’
Focus groups

What do you think is best for learning - giving or receiving feedback?

I think when you are reviewing...[the work of peers]...it’s more a self-learning process, you’re teaching yourself; well, I can see somebody’s done that and that’s a strength, and I should maybe try and incorporate that somehow into my work. Whereas getting...[teacher]... feedback you’re kind of getting told what to do; you’re getting told this is the way you should be doing it, and this is the right way to do it. You’re not really thinking for yourself.... I think...[reviewing]... would help you not need so much of teacher feedback, if there was more of this. Whereas, I think if you’re not being able to do...[reviewing]... then you will always be needing more...[teacher feedback]...
Enhancing reflective knowledge building through peer review

- Maximise the number of reviews within practical limits
- Integrate peer and self reviews
- Embed opportunities for dialogue in reviewing process
- Broaden the scope of the criteria
Conclusion

The most important finding from my research is that, unlike feedback receipt, reviewing the work of peers results in students actively engaging in multiple evaluative acts and in their generating their own internal feedback: feedback that is directly used to build new knowledge and understanding and that is directly acted on, if there are opportunities to do so.

This casts feedback in a new light. In my view, this empowering potential of reviewing has been under-researched in higher education.
Questions and Discussion
REFERENCES


