2-D feedback
(ipsative and cohort-based)

Steve Draper, Glasgow University

www.psy.gla.ac.uk/~steve/talks/rola2.html

Preface

For this talk:

- Suspend the well-justified disbelief.
- Assume for a moment that I must produce marks / grades.
- Ask how we can make these useful to students.

Part A:
Making marks useful to learners

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The problem

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Marks may be summative assessment i.e. primarily supposed to be meaningful to third parties, but nevertheless students try to use them.

My university publishes marking scales, but they don't give the student any usable comparisons for the mark they receive.

Like giving a volume in minims, a weight in scruples, or a temperature in degrees Réaumur: numbers actually are only useful to people who already remember the numbers of some cases measured on the same scale as comparison points.

All measurement is relative i.e. comparative to something else. What should a student compare their mark to?

Two answers

Normative help: how does your mark compare to the rest of the class?
We can't now publish the list of marks; but could show the distribution; or perhaps a normalised ranking: e.g. which of the 10 bins of ranks are you in e.g. between the top 20-30% of the class.

Ipsative help:
How does this mark (or rank) compare to your previous marks?
How do these comments compare to your previous comments?

ICT could be a big help here in bringing up earlier marks and comments to this student even when a different marker is now reading their work.

Does this actually help learners?

Well, the commonsense argument seems quite good to me.

And I was struck a few years ago when a colleague mentioned using Ipsative comments routinely (I learn from mentions of good practice by colleagues, as well as from mentions of my bad practice from students).

And so it became a hypothesis for me that might explain a striking success locally:

Eric Yao's success

Eric teaches a first year course at Glasgow: physics for engineers. N ≈ 40. For the 4 sessions 2007-11 the pass rate went: 40%, 67%, 38%, 95%. More than doubled it, then.

BIG success. But we don't know why. I had 5 hypotheses:

1. "Teacher monitoring": active monitoring of and commenting on each student's work
2. "Self-regulation". Aspects of the course support this better.
3. "2-dimensional feedback"
4. Ensure students begin with an experience of successful learning
5. Students in the cohort who set a high standard: demonstrate to others what is quite possible. (Setting a believable benchmark.)

What Eric did

The first 3 of these were implemented by one of the things Eric did. He made the class complete some online MCQs every fortnight; and then as head of class, emailed each student individually using the marks from the question bank. He thus made a personal communication (1), commented both on how this mark compared to that student's previous marks (ipsative), and to the rest of the class on this piece of work (normative) (3), and thereby promoted their time on task i.e. their self-regulation (2) of effort by giving them this feedback on the effect of their effort on their marks.

A student I interviewed from this course made this vivid for me. He ended up with an A, but didn't sound like a typical A student. He said he didn't like the 9am lectures and if he missed one he felt he'd caught up by reading the slides etc. on line; but he noticed that the quiz marks he got didn't support this feeling and so he made more effort to keep up attendance.

More

The other two hypotheses however could be interpreted as also about providing comparators to make marks meaningful for learners, but which the form of 2-dim feedback above does not provide.

4. Ensure students begin with an experience of successful learning
5. Students in the cohort who set a high standard: demonstrate to others what is quite possible. (Setting a believable benchmark.)

Benchmarks have to be believable i.e. perceived as achievable. The teacher's word isn't any good; but a single star foreign pupil wasn't either in an earlier year. But several such were.

Starting with a success may be important to show each learner they can do it: thenn they will self-regulate later difficulties based on knowing it can be done.

Prompted student processing of marks

2-dim feedback by itself (e.g. from a computer) might not do it.

Eric additionally wrote personal emails thus achieving what I have called "teacher monitoring".

You could explain it in social terms; or you could explain it in cognitive terms directly parallel to the "Prompted student processing of feedback" described in my first talk. His emails provide a prompt for students to notice and reflect for a moment on their marks (rather than qualitative feedback). Without that, they may not pay any attention and so the whole exercise of doing the quiz and getting a mark would be without effect on the learners.

Comments on 2-D feedback

Different students are not all interested in the same scale / comparison. A star student often likes the normative comparison; a middling student likes to see if they have improved instead of focussing on how they are still way behind the star.

These are not the only 2 comparisons, and may perhaps not be the best 2 either.

What my students would most like is predictive feedback: a prediction of how this current mark predicts (at least based on historical data) their eventual degree class.

Furthermore what we should really do is not return a single portmanteau mark, but a vector of marks: one for each stated marking criterion (as Rowntree argued in 1977). This would still be marks without comments, but would greatly extend the useful information content.

Section Z:
Back to the framework

Back to theory

I began this morning with 5 'pieties' often presupposed, but untrue in many cases.

Yet feedback does help students sometimes;
and students in fact do a lot of self-regulation from assessment marks (not qualitative feedback).

What do I really think? How can these issues be reconciled?

The negations of pieties revisited

1. Assessment is done for 3rd parties, not to assist learning
2. Feedback is not necessary for learning
3. A&F is the most backward area in thinking about HE learning and teaching
4. Self-regulation, not transmission, is the educational aim.
5. Which goal are students using feedback to adjust (regulate)?

What would be my theoretical resolution?

A. We have to think that the success of learning, and so the requirements for good teaching, concern not just the content but equally importantly the "management layer": the way decisions are taken (jointly) about the actions of the learner: their nature, the amount, duration, intensity, and timing of their effort.

B. Contingent tutoring: Wood's work provides (for me):

- A complete image of the progress from a learner's utter ignorance to independence at a given task.
- The lesson that what the tutor provides must be continually adjusted and is quite different in kind between the initial and final stages. Almost no simple rule about feedback is general.
- The observation that the optimal strategy is wholly unnatural for humans. We are born bad teachers, and have difficulty changing.

A place to stop

- Questions?

For the slides, handout etc. see:

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