

What if feedback only counted if the learner used it?

Steve Draper, Glasgow University

For links and materials related to this talk, see:

<http://www.psy.gla.ac.uk/~steve/talks/usedFbck2.html>

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Part A: What underlies students' relationship with feedback?

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What is wrong with students' relationship to feedback?

The questions:

Why don't students use feedback?

What is the real goal of feedback?

What goals do students really have which feedback could assist?

What is the real issue behind students' use of feedback?

The symptoms:

They don't pick up written feedback

They say they don't get feedback

They say it's not applicable to any future work they'll do

They look at the mark not the comments

They won't do any formative work unless there's a mark/credit

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Part B: How should we change our approach to feedback?

The measure of feedback value

Feedback is of no use whatever unless it is used by students. The criterion of teaching success here is: what specific thing they modify or reappraise as a result.

How fast the feedback is returned has no value in itself. All the advice about the content and style of feedback has no value in itself.

We have to focus on what the student is going to do with it. (See also Draper, 2009b: "What are learners actually regulating when given feedback?")

If they do nothing because of feedback, then no value.

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New mottos: What would it be like to embrace these?

There is no point in giving feedback unless the learner uses it: modifies or actively reappraises something specific as a result.

What would our teaching be like if it only counted as feedback when the learner used it to determine their behaviour as a result?

(How would we check on this? How would we tutors self-regulate our behaviour?)

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What kinds of student actions should we expect and support with feedback?

Regulating effort.

Look at the mark: decide if I need to work more, or less, on this course.

Correcting understanding.

Have I "got" this topic? Which bits don't I know or understand properly?

Improving procedural skill.

Which aspects don't I perform adequately, or understand properly

What facet of my essays / lab skills don't I do well enough?

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Part C: Making marks more usable and used

Case 1:

- Marks** not comments
- Calculation-based** not essay-based discipline.
- Learners' goal: Self-regulating their **effort**

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Making marks useful to students

For a different kind of feedback — marks from a quiz — a different kind of prompting seems effective. That is, a mark or grade by itself can change a student's actions: i.e. can function as formative feedback.

For comprehension, increasing amounts of evidence suggests that explanations are not what students mainly need: once motivated, they'll find them themselves. Instead, they need to know what it is they don't yet understand. I.e. not comments, but "marks". [Mastery learning; Mazur's "PI"; Smith et al.2009]

However what makes a mark into a signal which the student believes tells them that more work on understanding this topic is needed?

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The problem

Learners look at marks; usually ignore feedback comments.

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.

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

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 in some cases measured on the same scale as comparison points.

The first two answers

Normative help: how does your mark compare to the rest of the class?

We can't 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.

See Schofield's talk 6.3.2, this conference, Thur. 10:30am Argyll suite.

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).

This became a hypothesis for me that might explain a striking success locally

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Eric Yao's success

Eric teaches a first year course at Glasgow: physics for engineers. $N \approx 40$. For the 4 sessions 2007-11 the pass rate went: 40%, 67%, 38%, 95%.

(And this year again: only 3 of 32 failed: pass rate = 90.6%)

More than doubled the pass rate, then.

BIG success. But we don't know why. Some hypotheses:

1. "Teacher monitoring": active monitoring of and commenting on each student's work. Each student feels their work is noticed.
2. "Self-regulation". Aspects of the course support this better.
3. "2-dimensional feedback"

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What Eric did

These 3 were all 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.

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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" I'll describe next. His emails provide a prompt for students to notice and reflect for a moment on their marks (rather than on 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.

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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 student.

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

What my students would most like in addition 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.

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Summary: 3-D feedback

Marks, like any number, are meaningless unless the reader has benchmarks in their head to compare them to.

The 3 scales which are probably the most wanted are:

- Ipsative: compared to the student's own previous marks
- Normative: compared to the rest of the class on the same task
- Predictive: what degree class does this mark predict?

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Part D: Prompting the processing of feedback: Making feedback comments used

Case 2:

- a) **Comments** not marks
- b) **Essay-based** not calculation-based discipline.
- c) Learners' goal: regulating their grasp of **skills** and content

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Some things I've tried in my own feedback practice

(I have a year 3 (of 4) tutorial group of 5-6 students each semester.)

I organise reciprocal peer critiquing (RPC), which they value, and which also sets up a good peer atmosphere for discussion.

But my own feedback seemed less successful, even though I:

- Provide the feedback in typed form (they say this is important)
- Provide both positive and negative comments
- Suggest specific changes that could have been made.
- Promote elective feedback
(the learner says what issues they particularly want feedback on)
- Give them all the feedback for each of them (peer sharing).
- Require them to pick up the feedback from me, and read it on the spot.
- Promote discussion of feedback with myself.
- Promote discussion of feedback with peers.

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Nevertheless ... failure

Yet disappointingly, not a lot of discussion happened.

I had failed to get good discussion about returned feedback to happen.

Learners (my tutees anyway) seemed just not to be thinking about the feedback, even though they turned up to meetings and read the feedback. Their memory of their original work had faded from both their memory and their to-do list, and reading even extensive feedback was not enough to make them think about it actively.

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Then success: Prompted student processing of feedback

As before, then after they have read the feedback, sitting round in a group in my office, I asked them each to fill a prompt sheet:

1. You were keen to know what mark I had given you.
 - a. Why is that important to you?
 - b. What will you do differently because of the mark? (or what would you have done differently if the mark had been a lot different?)
2. If you had to re-edit this essay, then how would you apply my feedback to do this, if at all?
3. How will you apply my feedback to writing your next essay?
4. How will you apply my feedback to critiquing other students' essays in future?
5. Re-phrase (each of) my comments on your essay in your own words: what do they mean, what did they apply to what future actions do they imply?
6. Is the feedback I wrote at all useful to you personally, as far as you can tell now?

Evidence from 2 trials

Almost all said they valued the oral discussion around the feedback process as greatly as the personal written feedback. One commented that it made her actually process the feedback, implying that normally she wouldn't have done so.

Before I started using the prompt sheets, even very good students would say after receiving my feedback things like: that's interesting but I don't think it will be relevant to my next assignment which will be marked by someone else.

Now, they don't say that, and have little trouble filling in on the sheet things they will do differently in the light of the feedback.

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So:

The job of providing written feedback isn't done with the writing: we have to do something to get learners to process it.

They showed no sign of resenting the time to do this; and one student, who couldn't make the group time, filled it in at home before coming in to see me.

Probably: what matters is student processing (reflection) of the comments into future actions.

Dialogue can prompt this.

The prompt sheet can prompt it.

Or anything that prompts dialogue about the feedback's implications.

Part E: Conclusion

Summary (1)

There is no point in giving feedback to a learner unless the learner uses it.

There are 2 jobs to do in making feedback actually useful:

- Making **comments** useful to (acted on by) students
- Making **marks** useful to (acted on by) students

Both involve an aspect of prompting reflection by students.

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Summary (2)

There is no point in giving feedback to a learner unless the learner uses it.

The three student goals:

- Improving procedural skill comes from processing essay comments (by diagnosing which aspects require improvement).
- Regulating effort: "2D" or "3D" feedback turn marks into comparisons tell the student whether more effort is needed.
- Correcting understanding: Not a single total, but marks by question/item diagnose which topics require improved understanding.

Theory: time to wake up

Just because a researcher labels an intervention or learning design as "feedback" does not mean that this is an accurate or complete identification of the active causal factor.

Hattie & Timperley (2007) showed that feedback quite often reduces learning.

Black & Wiliam (1998) cannot be taken as clear evidence that feedback is powerful. Perhaps we haven't understood what it is that matters, even in the cases when it works.

Bloom's mastery learning, which got a bigger effect size (1.0) than most in the feedback literature, was not called "feedback" by its practitioners. They spoke about "formative testing", and retraining students on how to interpret and act on the feedback.

If the most successful don't call it "feedback", shouldn't we listen?

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Message

Aspiration: Feedback that is used by learners

(There is no point in giving feedback to a learner unless the learner uses it.)

Design principles:

1. Ensure something triggers the learner into processing feedback into future actions.
2. Ensure marks are expressed on scales which are meaningful to the learner (connect to something they already know).
3. Expect that several different scales or comparisons need to be provided for every mark.

A place to stop

Ensure there is something that triggers the learner into processing any feedback into actions.

- Questions?

For the slides, handout etc. see:

<http://www.psy.gla.ac.uk/~steve/talks/usedFbck2.html>

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