

CERE slideset 4B:
 Concepts and Empirical Results in Education

PrincipleB: iteration and convergence
 Feedback
 Vygotsky

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<http://www.psy.gla.ac.uk/~steve/courses/cere.html>

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Feedback

[Looks back to: L-model principle B: iteration]
 [Looks back to: Contingent tutoring]

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neo-Vygotskian-ism

Links:
 Wood's use of "scaffolding"
 Wood's contingent tutoring

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Why is Vygotsky interesting for HE learning?

No proven reason at all to apply it here. But ...

Paul Black's argument.

Three possible big claims (in extending it):

- How teaching and learning may work
- All (important conceptual) knowledge is pre-figured in a new, specific conversational type or style.
- All (important conceptual) knowledge IS a new, specific conversational type or style.

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What are the alternative learning strategies?

- Part-whole learning
- All-at-once [Vygotsky's implicit choice]

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What are the alternative Tutoring strategies?

Given a choice of All-at-once learning strategy, then:
 What are the alternative Tutoring strategies?

- Contingent tutoring [c-tut] [Vygotsky's implicit choice]
- Modelling (i.e. demonstrating it by Teacher doing it)
- Explaining

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Scaffolding

Scaffolding is a metaphor for contingent tutoring.

Note that it simultaneously scaffolds:

- The social interaction and relationship
- The task as a whole (connecting the separate actions)
- The learner's understanding of the purpose and value of the task.

Can call these meta-knowledge, or

The c-tut tactic is not in fact just to provide a fixed scaffold: it is better thought of as "progressive withdrawal of scaffolding".

ZOPD/ZPD: the zone of proximal development. Dynamic assessment.

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What are some alternative Tutoring tactics?

Given a choice of All-at-once learning strategy, and
Given a choice of the Contingent Tutoring tutoring strategy, then:
What are the alternative Tutoring tactics?

- Pre-supposition and inference (in normal conversation)
- Hints
- Prolepsis: forcing inference of the conclusion, even when it would be normal to state it explicitly.

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Feedback

**I.e. feedback from teacher to learners;
on the learner's work
often written feedback.**

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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

Possible analysis

- A. For many students, it is as if they have absolutely no concept that feedback is part of their learning.
Either they have never had any feedback that helped them, or they didn't notice it was helping them; and no-one actually talks to them about its role in learning and in university courses.
- B. When their work is ready to return, it has wholly gone from their minds.
 - Consequently if they read the comments, it won't be helpful since the context has gone and anyway they aren't thinking about it: it is unrelated to their current work and deadlines.
 - Looking at the mark is done to decide whether there is any emergency which requires action: if not, then no further attention need be paid to the comments.

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Learner uses for feedback

Draper (2009b):

6 Ways a single learner may interpret a single feedback message.

6 goals a learner may have, and may self-regulate for.

- Effort (2-dim feedback would assist this)
- Learning: improving future process and products (fprompt supports this)
- Revising the current product (doing corrections)
- Deciding what subjects (courses) to take in future / next.
- Deciding the quality / validity of the marker
- Deciding the quality / validity of the marking process (is it just random?)

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Solution 1:

Elective feedback

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Asking for feed back: elective feedback

[More dialogue; less one-off monologue]

With RPC or equally with tutor-marked assignments, another element is to ask the critiquer (marker) three things you would like comments on.

Sue Bloxham (Carlisle) has developed this so that students will only get feedback in response to such questions.

- Saves tutor time
- Gets learner thinking actively about feedback, so they are more likely to use it if given
- But crucially: can be the only way the learner will get feedback on the issue if in fact they are doing adequately so that the tutor would normally not pick it out for comment.

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Solution 2:

RPC = reciprocal Peer Critiquing

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My current recipe for RPC

Reciprocal Peer Critiquing (RPC)

Psychology level 3 undergraduates.

Done twice, first with past (already marked) work; second for new coursework before submission.

- Students bring in and exchange work
- Prefaced by 1-3 questions they particularly want comments on
- Each critiques 2 others, address criteria plus the questions; rubric: best and worst feature
- Round table, F2F feedback, tutor chairing

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My current recipe (2)

Always goes down well with my students, once they've done it.

See Morrow (2006) for evidence.

Most enthusiastic about seeing how other students write, but also about getting feedback.

Perhaps best indicator is that having done it the first time, they commit to finishing the next bit of work a week early to allow time to do it then.

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Prompt sheet

Criterion 1: quality of literature research

- What's good?
- What could be improved?

Criterion 2: quality of the write-up

- i.e. well presented and clearly structured?
- What's good?
- What could be improved?

Criterion 3: quality of Critical analysis

- What's good?
- What could be improved?

Prompt sheet 2

This rubric was for an English course:

What is the issue that the draft is addressing? Is it interesting, or do you care?

Say what you think is the argument of the draft. If the argument is not clear, suggest what a possible argument might be.

What reasons does the writer offer to support the argument? (You may like to break down the argument into quasi-syllogistic premises or to identify a Toulmin-style warrant for the argument).

Suggest a counterargument to the argument of the draft. This comment may, alternatively, point out unexamined assumptions and/or missing or unacknowledged evidence.

Identify a characteristic sentence of the writer. Say what you think is good about this sentence, or how this sentence can be improved (your chosen sentence may simply identify a repeated writing fault)

Reciprocal peer critiquing: boxes ticked

Boxes ticked = principles enacted:

- Peer assessment (the peer voice)
- Exercise the criteria from another viewpoint
- Peers see each others' work (resource for remedies)
- See how own and others' work compares in quality
- Learners proactive in formulating feedback questions
- Can act on feedback directly (in 2nd application)
- F2F delivery means dialogue around feedback, and not just clarification but multi-party discussion.
- Multiple opinions on same work: information on variability
- Teacher scaffolds first RPC, then leaves it to the learners

Big scale RPC

What about big classes?

As described, it works for groups of 2-6.

1. I've done it in a lecture group of 90 for short (100-200 word) passages: swap with neighbour and do RCP
2. Use software to manage it.
There is free software, and numerous papers reporting experience, on how to do it with big classes (60, 600, ..)
Quintin Cutts has some local experience;
John Hamer: google "Aropa peer"
3. Speed RPC-ing?

Anonymous vs. F2F feedback

Pro-anonymous: data protection, privacy

Pro-face to face:

- More useful and serious critiques are elicited
- Dialogue for clarification of what the feedback means
- Dialogue of a more open-ended and multi-party kind
- Get feedback on the feedback you gave
- Hear critical issues directed to others but relevant to self.
I.e. discussion of other work than only your own.

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The Vygotskian idea

Social constructivists, following Vygotsky, believe that for every form of thought there is a prefiguring type of conversation. That is where learners first grasp and start to join in this new type of dialogue; and later internalise it and so come to do it solo.

I make my students first exchange RPC comments round a table, face to face, with me there. This establishes the tone required: neither hostile, nor vapidly polite.

Then they can (and often do) do RPC without me there.

(This works without the irresponsibly glib, hostile, vacuous reviews often got with anonymous software-mediated RPC.)

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The Vygotskian idea (2)

Possibly, it would be good to introduce students to this by a still more graduated sequence. For example:

1. Tutor “models” the kind of comment appropriate
2. Small groups compose joint critiques
3. Solo students deliver critiques F2F
4. Solo students deliver this by email etc.
5. Informal (self-organised) student use

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Evidence from a puzzle about RPC (Reciprocal Peer Critiquing)

Morrow (2006) found strong student attitude support for RPC's benefits, but strongest for being able to see others' work.

I.e. they seem to say that getting feedback on their work is not as useful as simply seeing alternative possible ways of doing it.

That's also what I find repeatedly in oral feedback.

Price et al (2007) found the same.

This doesn't exactly match published theories of feedback.

Students believe it's useful after having experienced the process; and then act on their belief by doing it voluntarily.

But it's not clear how to measure learning gains.

Not least because the gains may only be far in the future and certainly NOT on the current piece of work.

Solution 3:

How should we change our approach to feedback?

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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?")

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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 content.

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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Solution 4:
Prompting the processing of feedback:
Making feedback comments used

A case from an essay based discipline.

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, and wanted it to.

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?

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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.

This solution emphasises the crucial importance of:

[Chi's levels]

Active

Constructive

while RPC also achieves Chi's Interactive

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Dialogue (and feedback)

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Dialogue

Contingent tutoring tells us (among other things) that feedback must be at the right level of detail to be useful for learning. In Wood's work, this was because the tutor could see from the learner's visible actions and past response to instruction, what that level was at a given moment. In general, this is done by dialogue: by the learner asking questions or their response to the tutor.

In dialogue, you see whether you are understood and correct the communication dynamically — and you don't have to take care to get it right first time.

It is why monologue (e.g. writing) is much harder than dialogue (conversation).

Laurillard's underlying principle of iteration and convergence is an educational version of this.

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Dialogue (2)

Applied to feedback, it means it is actually profoundly foolish to produce written feedback: feedback should be given in dialogue. (*class test with EVS*)

Feedback will be much more effective if delivered F2F and with dialogue learner <-> tutor.

It may also be better with peer dialogue as well.

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Sharing feedback

Get together with several other learners, and compare the feedback you each got. Generally this illuminates the issues. Or conversely, the tutor creates a comment bank: a set of the common issues.

- See what the tutor cares about (you might have done OK on the issue by accident without realising it was important)
 - See if they gave a better or different comment on an issue that concerns you
 - Much more economical of tutor time if not 1 but 100 students see each comment. And they are likely to write it more carefully and fully if the comment is only written once (but seen by many)
- Giving generic feedback sheets gets this effect (cf. Mike Burton and L3 stats class). Everyone gets to see the issues, and can judge whether they apply to themselves.

Dialogue (3)

Jigsaw: many L-designs that are close to Aronson's Jigsaw design have learners in small groups preparing materials, but then have them "deliver" them to a large group. This suppresses the dialogue. Aronson's design has a single "expert" learner deliver their specialist subtopic in a small group (e.g. 4 other learners). Obviously this is much more likely to promote dialogue between presenter and their audience; and any lack of clarity by the presenter will immediately then be addressed by questions and answers; making successful communication more likely and less dependent on the skill of the presenter. If you really wanted the audience to learn (as opposed to doing a token exercise to promote "presentation skills") then dialogue is important.

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Recap

The sources of feedback:

- Internal,
- Other people,
- Material world

Contingent tutoring

Whether feedback improves the learner's knowledge depends not on delivery but on them processing it. Many students do not.

The mixed evidence on how good we are at self-judging whether we know something.

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A place to stop

For the slides, handout etc. see:

<http://www.psy.gla.ac.uk/~steve/courses/cere.html>

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