




Feedback on feedback

LOOK AT LEARNING OR MASTERY IN FIELDS AS DIVERSE AS SPORTS, THE ARTS, LANGUAGES, THE SCIENCES OR RECREATIONAL ACTIVITIES AND THE RESEARCH EVIDENCE IS CLEAR: GREAT TEACHERS GIVE GREAT FEEDBACK, SAYS **STEVE DINHAM**.

QUALITY TEACHING AND STUDENT PERFORMANCE are key matters of concern to educators everywhere. As the likes of John Hattie, Professor of Education at the University of Auckland, and Ken Rowe, Principal Research Fellow at the Australian Council for Educational Research have pointed out, we know from a vast range of studies that the teacher is the major in-school influence on student achievement. How we improve teacher effectiveness and lift student achievement or, as Richard Elmore put it in 1996, how we up-scale the incidence of highly effective teachers and schools can, however, seem daunting.

Many international research studies of student achievement have been subject to meta-analyses with revealing findings. In almost every list of effect sizes for 'treatments' influencing student achievement, feedback is at or near the top of those treatments which have the greatest effect on student learning. Large effect sizes of 0.7 to 1.0 or even higher are commonly calculated for the effect of teacher feedback on student performance. For more on this, see John Hattie's 2003 'Teachers make a difference' paper or his 'Developing potentials for learning' paper published last year.



What is this effect size?

'Effect size (ES) is a name given to a family of indices that measure the magnitude of a treatment effect. Unlike significance tests, these indices are independent of sample size. ES measures are the common currency of meta-analysis studies that summarize the findings from a specific area of research.' (<http://web.uccs.edu/lbecker/Psy590/es.htm>). An ES of 0.6 or greater is usually considered large.

What, then, is feedback? In the context of teaching and learning, feedback can be defined as any form of response by a teacher to a student's performance, attitude or behaviour, at least where attitude or behaviour impinges upon performance. It's important to realise that feedback is not only an outcome of student performance but an essential part of the learning process. It's also important not to confuse feedback on performance with 'positive reinforcement,' self-esteem 'boosting' – as Catherine Scott and I described it in a 2005 article in the *Australian Educational Leader* – or praise or punishment.

Feedback can be written or spoken and may even be gestural, indicating approval, encouragement or criticism. There's also scope for peer, that is, student-student feedback and for students to provide feedback to a teacher on that teacher's performance. Teachers can also receive feedback on their performance from peers

or supervisors. More rarely, supervisors receive feedback from their staff.

Here, I'll concentrate on teacher-student feedback, but should point out that my research into highly effective departments and schools has shown that successful leaders provide high-quality feedback to their staff, an important influence on the quality of teaching in their schools. For more on this, see *Leadership for exceptional educational outcomes* and 'The secondary Head of Department and the achievement of exceptional student outcomes.'

Look at learning or mastery in fields as diverse as sports, the arts, languages, the sciences or recreational activities and it's easy to see how important feedback is to learning and accomplishment. An expert teacher, mentor or coach can readily explain, demonstrate and detect flaws in performance. He or she can also identify talent and potential, and build on these.

In contrast, trial and error learning or poor teaching are less effective and take longer. If performance flaws are not detected and corrected, these can become ingrained and will be much harder to eradicate later. Learners who don't receive instruction, encouragement and correction can become disillusioned and quit due to lack of progress.

Feedback is equally vital in schooling and performs a variety of functions including recognising, correcting, encouraging, challenging and improving student performance. Feedback also keeps students on track and is an aid to classroom management. Students know which teachers never check homework, mark books or monitor and assess their work in other ways. They also know those teachers who use empty praise to win favour and compliance.

It should be noted that there is the potential for feedback to be negative, in that it can discourage student effort and achievement, as John Hattie and Helen Timperley note in 'The power of feedback.' In some cases bad feedback can be worse than no feedback.

If feedback is to be effective it needs to be frequent, constructive and instructive. Sensitivity is important, as is the relationship between the teacher and learner. The right balance needs to be struck between not wanting to hurt someone's feelings and destroying their confidence. While some people can be pushed to perform at a higher level, others need more encouragement and sympathetic handling. In reviewing the findings from a range of meta-analyses, Hattie and Timperley found that, 'Those studies showing the highest effect sizes (for feedback) involved students receiving information feedback about a task and how to do it more effectively. Lower effect sizes (for feedback) were related to praise, rewards and punishment.'

Comments and suggestions contained within feedback need to be focused, practical and based on a professional assessment of what the student can do and is capable of achieving. Feedback such as 'concentrate more,' 'get help with your spelling,' 'improving,' 'poor punctuation,' 'some good ideas,'

'did you write this?' and 'satisfactory' provides little reassurance or guidance. Likewise, ticking boxes on marking sheets without accompanying comment is ineffective and impersonal. The criteria used for assessing student work need to be clear, understood by the student and used to frame personalised feedback. There's nothing wrong with feedback from a computer if it contains the essential features of effective feedback.

A study of highly successful senior secondary teachers in public schools in New South Wales by Paul Ayres, Wayne Sawyer and me demonstrated the importance of feedback in influencing student achievement. Drawn from various disciplines, the teachers we studied gave timely, frequent, high-quality, focused, constructive feedback to their students. When written work was submitted for assessment, teachers provided comprehensive feedback. More informally they gave feedback to students individually and collectively through observing and commenting on students' class work and responses to questioning. In these ways, teachers were able to monitor and maintain student performance and progress.

In some cases, the feedback given by teachers might be considered excessive. One English teacher we observed maintained a regime whereby after each lesson students were required to write 250 words on two key matters arising from the lesson. This was placed on the teacher's desk at the commencement of the following lesson and during that lesson while students were working the teacher read and wrote comments upon these notes. This feedback was then given back to the students later in the lesson.

Other teachers in the study were seen to insist on student note-making rather than note-taking or copying. They frequently consulted with students and provided written and verbal feedback on these notes, often during class time. While students were working individually or in groups, teachers were observed to be moving through the class, quickly monitoring, assessing, suggesting, explaining, questioning, listening and commending.

Teachers in our 2000 study of successful senior secondary teaching communicated the purposes of assessment and feedback to their students. In doing so, they often provided models or examples of student responses and explained to their students why work had been graded as it was, why a 12 out of 20 paper or an 18 out of 20 paper had received the mark awarded, and how each paper could be improved.

One of the most powerful forms of feedback used by effective teachers was the one-to-one interview with a student. In some cases this took place during class time while the rest of the class was working; in other cases, a special time was scheduled. Oftentimes, a student only gets to speak with a teacher one-to-one when he or she is in trouble, which may be why a constructive one-to-one interview has so positive an effect.

My involvement with the successful senior teaching study and a number of other studies into effective teaching and learning has shown me that learners consistently want answers to four questions about their work:

1. What can I do?
2. What can't I do?
3. How does my work compare with that of others?
4. How can I do better?

Effective teachers provide answers to all four questions on a regular basis, but they especially answer 'How can I do better?' because this is the key to remediation and improving performance. Every student wants to do better.

There's no doubt that teachers are busy people and subject to the pressures of the job, but if they don't regularly assess student performance – in the broader sense – and provide feedback, they make it very difficult for students to progress. A bare mark of 6 out of 10 with a comment along the lines of 'good' is next to useless in providing guidance for improvement and in answering those four key questions. Too great a focus on 'What can't I do?' at the expense of 'What can I do?' can also be a problem, with the latter having twice the effect size of the former, according to research reported

by Avraham Kluger and Angelo DeNisi in 'Feedback interventions: Towards the understanding of a double-edge sword.'

There is, of course, something of an ideological issue in all this. Some people like to think of teaching and learning in terms of a dichotomy that opposes explicit teaching or direct instruction with discovery learning or constructivism. When those who see themselves on the discovery learning or constructivist side also see themselves as facilitators they may shy away from giving 'hard' assessment, reporting 'failure' or providing feedback which might upset or discourage the learner, a reluctance that can become very strong if you also subscribe to notions of 'free expression' and 'multiple realities.'

The research evidence, however, is clear. In terms of measured effect sizes, feedback, remediation, and direct or explicit instruction are more effective in promoting student achievement than problem-based learning, inductive teaching, inquiry-based teaching and the like. For more on this, see John Hattie's 2007 paper, Richard Mayer's 2004 'Should there be a three-strikes rule against pure discovery learning?' or my 2007 work with Ken Rowe.

When asked to provide evidence and guidance on enhancing the quality of teaching and student performance, I'm usually equivocal about advocating quick fixes because I know how long it can take to turn a school around, as I've already said in 'How schools get moving and keep improving.' In the case of feedback, however, I'm prepared to state categorically that if you focus on providing students with improved, quality feedback in individual classrooms, departments and schools you'll have an almost immediate positive effect.

The research evidence is clear: great teachers give great feedback, and every teacher is capable of giving more effective feedback.

It stands to reason that if a student doesn't know where he or she stands and how he or she can improve, then parents will have even less of an idea and will be poorly equipped to assist and provide support to both student and teacher.

My advice to any teacher, department or school seeking to improve student achievement is to start with feedback, that thing which we know has the largest or near largest effect size in respect of student learning.

I suggest that you begin the professional conversation about feedback by asking eight questions.

1. What are our present approaches – formal and informal – to student feedback? Conduct an audit.
2. Are our assessment methods and criteria clear, valid and reliable? Identify the links between assessment and feedback.
3. Do our students understand what is meant by feedback?
4. Is the feedback our students receive infrequent, unfocused, unhelpful, inconsistent or negative? Broadly, how effective is our feedback?
5. Is the feedback we provide focused, comprehensive and improvement oriented, addressing the four key questions raised above?

6. How does the feedback our students receive relate to parental feedback through reports, interviews and parent nights? Broadly, is feedback to students and parents consistent?

7. How can we provide our students with improved feedback?

8. How will we know if it works? What evidence will we need?

The answers to these questions will provide an important foundation for improving the quality of teaching and student achievement in our schools.

Feedback is, however, only one part of the equation. It's not a substitute or remedy for poor teaching. **T**

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