

Powerful teacher feedback

Professor Stephen Dinham

Quality teaching and student performance are key matters of concern to educators and broader stakeholders everywhere. We know from a vast range of studies that the teacher is the major in-school influence on student achievement (Hattie, 2003; Rowe, 2003). However improving teacher effectiveness and lifting student achievement can seem daunting. How can we up-scale the incidence of highly effective teachers and schools (Elmore, 1996)?

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 greatest effect on student learning**. Large effect sizes (such as 0.7-1.0 or even higher) are commonly calculated for the effect of teacher feedback on student performance (see Hattie, 2003; 2007). (Note: '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 summarise 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 is important to realise that **feedback** is not only an outcome of student performance but an **essential part of the learning process**. It is also important **not to confuse feedback on performance with 'positive reinforcement'**, self-esteem 'boosting' (Scott & Dinham, 2005), praise, or punishment.

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

feedback). Teachers can also receive feedback on their performance from peers (teacher-teacher feedback) or supervisors (supervisor-teacher feedback). More rarely, supervisors receive feedback from their staff (staff-supervisor feedback). In this discussion, feedback is largely confined to teacher-student feedback. However, 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 (Dinham, 2007a; 2007b).

When we consider learning or mastery in fields as diverse as sports, the arts, languages, the sciences or recreational activities, it is 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 (Hattie & Timperley, 2007). 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

Professor Dinham explores research undertaken on the nature of feedback and its many and varied impacts on the learning experience.

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 noted (2007, p. 84):

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. Statements such as 'concentrate more', 'get help with your spelling' [i.e., 'passing the buck'], 'improving', 'poor punctuation', 'some good ideas', 'did you write this?' and 'satisfactory' provide little reassurance or guidance. Ticking boxes on marking sheets is ineffective and impersonal without accompanying comment. The criteria used for assessing student work need to be clear, understood by the student and used to frame personalised feedback. There is 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 NSW public schools demonstrated the importance of feedback in influencing student achievement (Ayres, Dinham & Sawyer, 2000; 2004). Drawn from various disciplines, these teachers 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 was observed to have 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 classes 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 the successful senior secondary teaching study 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, e.g., this is a 12/20 paper; this is an 18/20 paper; this is why each paper received the mark awarded, this is 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. It is interesting to reflect that often the only time a student gets to speak with a teacher one-to-one is when he or she is in trouble.

Involvement with the successful senior teaching study and a number of other studies into effective teaching and learning (see Dinham, 2002; 2007a; 2007b) has revealed that learners consistently want answers to four questions about their work, loosely stated as:

- What can I do?
- What can't I do?
- How does my work compare with that of others?
- How can I do better?

Effective teachers provide answers to all four questions on a regular basis. The question of 'How can I do better?' is of particular importance, as this is the key to remediation and improving performance. Every student wants to do better. There is no doubt that teachers are busy people and subject to the pressures of the job. However failure to regularly assess student performance – in the broader sense – and provide feedback makes it very difficult for students to progress. A bare mark of 6/10 with a comment along the lines of 'good' is next to useless in providing

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guidance for improvement and in answering the four key questions raised earlier. Too great a focus on 'What can't I do?' at the expense of 'What can I do?' can also be problematic, with the latter having twice the effect size of the former (Kluger & DeNisi, 1996).

There is something of an ideological issue which needs to be raised at this point. Some people have dichotomised explicit teaching or direct instruction with discovery learning/constructivism. Those who subscribe to the latter sometimes see themselves as facilitators and guiders of learning and may shy away from giving 'hard' assessment, 'failure', and feedback which might upset or discourage the learner. This can be compounded by notions of 'free expression' and 'multiple realities'. However, once again the research evidence is clear. In terms of measured effect sizes, feedback, remediation, and direct/explicit instruction are more effective in promoting student achievement than problem-based learning, inductive teaching, inquiry based teaching and the like (Hattie, 2007; Mayer, 2004; Dinham & Rowe, 2007).

When asked to provide evidence and guidance on enhancing the quality of teaching and student performance, I am usually equivocal about advocating 'quick fixes' because I know how long it can take to turn a school around (Dinham, 2007c). However in the case of feedback, I am prepared to state categorically that a focus on providing students with improved, quality feedback in individual classrooms, departments and schools will have almost immediate, positive effect.

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

As an aside, it also 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 a conversation about feedback along these lines:

1. What are our present approaches to student feedback? (both formal, informal – conduct an audit)
2. Are our assessment methods and criteria clear, valid and reliable? (links between assessment and feedback)
3. Do our students understand what is meant by feedback? (nature, purpose)
4. Is the feedback our students receive infrequent, unfocused, unhelpful, inconsistent, negative? (effectiveness of feedback)

5. Does the feedback we provide address the four key questions raised above? (focused, comprehensive, improvement oriented)
6. How does the feedback our students receive relate to parental feedback? (reports, interviews, parent nights - consistency of feedback)
7. How can we provide our students with improved feedback? (action)
8. How will we know if it works? (evidence)

I believe that the answers to the above questions will provide an important foundation for improving the quality of teaching and student achievement in our schools. However, feedback is only one part of the equation. It is not a replacement or remedy for poor teaching.

References

- Ayres, P.; Dinham, S. & Sawyer, W. (2004) 'Effective Teaching in the Context of a Grade 12 High Stakes External Examination in New South Wales, Australia', *British Educational Research Journal*, 30 (1), pp. 141-165.
- Ayres, P.; Dinham, S. & Sawyer, W. (2000) 'Successful Senior Secondary Teaching', *Quality Teaching Series*, No 1, Australian College of Education, September, pp. 1-20.
- Dinham, S. (2007a) *Leadership for Exceptional Educational Outcomes*. Teneriffe, Qld.: Post Pressed.
- Dinham, S. (2007b) 'The Secondary Head of Department and the Achievement of Exceptional Student Outcomes', *Journal of Educational Administration*, 45 (1), pp. 62-79.
- Dinham, S. (2007c) 'How Schools Get Moving and Keep Improving: Leadership for Teacher Learning, Student Success and School Renewal', *Australian Journal of Education*, 51 (3), pp. 263-275.
- Dinham, S. & Rowe, K. (2007) *Teaching and Learning in Middle Schooling A review of the literature - A Report to the New Zealand Ministry of Education*. Camberwell: ACER.
- Dinham, S. (2002) 'NSW Quality Teaching Awards – Research, Rigour and Transparency', *Unicorn*, 28(1), pp. 5-9.
- Elmore, R.F. (1996) 'Getting to Scale with Successful Educational Practices', in Fuhrman, S.H.; O'Day, J.A. (Eds), *Rewards and Reforms: Creating Educational Incentives that Work*. San Francisco: Jossey-Bass.
- Hattie, J. (2003) 'Teachers Make a Difference: What is the Research Evidence?' <<http://www.leadspace.govt.nz/leadership/articles/teachers-make-a-difference.php>>
- Hattie, J. (2007) 'Developing Potentials for Learning: Evidence, assessment, and progress', EARLI Biennial Conference, Budapest, Hungary. <http://www.education.auckland.ac.nz/uoa/education/staff/j.hattie/j.hattie_home.cfm>
- Hattie, J. & Timperley, H. (2007) 'The Power of Feedback', *Review of Educational Research*, 77 (1), pp. 81-112.

Kluger, AN, & DeNisi, A. (1998) 'Feedback interventions: Towards the understanding of a double-edge sword', *Current Directions in Psychological Science*, 7, pp. 67-72.

Mayer, R. (2004) 'Should there be a three-strikes rule against pure Discovery Learning?', *American Psychologist*, 59 (1), pp.14-19.

Rowe, K.J. (2003) *The Importance of Teacher Quality as a Key Determinant of Students' Experiences and Outcomes of Schooling*. Discussion paper prepared for the Interim Committee of

the NSW Institute of Teachers available at: <<http://www.nswteachers.nsw.edu.au/library/Rowe.html>>.

Scott, C. & Dinham, S. (2005) 'Parenting, teaching and self-esteem', *The Australian Educational Leader*, 27 (1), pp. 28-30.

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Professor Stephen Dinham is the Research Director – Teaching, Learning and Leadership at ACER. His email address is: <dinham@acer.edu.au>.