Formative assessment and feedback to learners

Feedback to students is at the heart of successful teaching, but research suggests that *how* this is given is key to whether it is effective. **Steve Higgins** explains

I work closely with teachers and am passionate about supporting them with research evidence that is helpful and practical for their teaching. Recently I have been undertaking a review of the evidence about what works for learners for the Sutton Trust, a UK charity which aims to improve educational opportunities for children and adolescents from non-privileged backgrounds and to increase social mobility. One of the questions that teachers have frequently asked me, is about what works in terms of formative assessment and feedback to students.

Assessment and learning

Feedback is an essential part of the learning process, but both students and teachers are often disappointed or even frustrated at the feedback process. Students complain they don't know what to do when they get the results of assessments, or even say getting feedback is demoralizing. More critically they often say that feedback comes too late to be of any use to them at all.

One of the aims of assessment and testing of students in the classroom is that it should help teachers teach more effectively, by understanding what their students already know or can do. It should also help students understand what they have to do next to improve their own learning. Thought of in this way feedback is not one-sided, it is a transaction between teacher and learner.

Formative assessment and 'assessment for learning'

In recent years there has been increasing interest in formative assessment where information is used by the teacher or by the learner as information to change what they do next in a teaching or learning activity. Assessment for Learning is an assessment task in which the main purpose is to promote or improve students' learning. This is different from assessments that aim to hold schools or teachers accountable or to identify the competence or ranking of students. An assessment activity can help learning in this way only if it provides information that teachers and their students can use as feedback in assessing themselves and one another, and then in modifying the teaching and learning activity. Assessment for learning only becomes "formative assessment" when it leads to this change.

We know that frequent summative tests and assessments have a negative impact on students' views of themselves as learners. This is especially true with "high-stakes" testing, when teachers may narrow the curriculum that they teach to match the test. This suggests that such assessments are more important for school or teacher accountability than for learning.
We know too that simply practicing assessments will improve students' performance, at least in the short term, but this does not help them with their learning. It's rather like squeezing a child's balloon, the bulge you make when you squeeze it makes the balloon look like it is

getting bigger, but there is really no more air in there. Once you let go, it goes back to the size it was before. Test practice is a bit like this in that the students aren't learning anything new. You are just squeezing the balloon. The way you get more air in the balloon is through more effective teaching. A key component of this is feedback which keeps teaching and learning on track to achieve its goals.

This suggests a closer examination of feedback is needed. The analysis that follows focuses on what teachers can do in terms of *how* they give feedback to learners and *what* they get students to think about, rather than other parts of the feedback cycle (such as how they might alter their instruction, or how learners can give feedback to each other). It is based on a number of reviews, but in particular John Hattie's analysis. His work indicates that there are different kinds of feedback to consider. These are about the task itself, about the process of the task or activity, about students' management of their own learning or their self-regulation, and about them as individuals and who they are. Research suggests that feedback is best directed at the first three levels. In addition, evidence shows that:

- It should be about *challenging* tasks or goals (rather than easy ones);
- It is even more important for teachers to give *feedback about what is right* rather than what is wrong;
- Feedback should be as *specific* as possible and, ideally, compare what students are doing *right* now with what they have done *wrong* before; and
- It should *encourage* students, and not threaten their self-esteem.

FEEDBACK ABOUT:	EXAMPLES	KEY POINTS
The task	Feedback about how well the task is being achieved or performed, such as: ● Indicating where correct responses are different from incorrect. ● Getting more or different information relevant to the task. ● Building more task knowledge. ● Prompts and direct cues.	Feedback that focuses even more on correct than incorrect behaviors, and which encourages the learner. Being positive about errors as learning opportunities.
The process	Feedback specific to the processes of learning, the *how* rather than the what, or relating and extending tasks such as identifying: ● Connections between ideas. ● Strategies for spotting mistakes. ● Explicitly learning from mistakes. ● Cues to the learner about different strategies and errors.	Identifying where in the process to focus attention to improve, relative to previous attempts.
Self-regulation	How students monitor, manage, and regulate their actions towards the learning goal, such as their: ● Capability to identify feedback themselves and to self-assess. ● Willingness to put effort into	Needs to emphasize success at challenging activities through effort, focusing on specific strategies for self-regulation which led to their success. Successfully corrected errors are a key part of this.

FEEDBACK ABOUT:	EXAMPLES	KEY POINTS
	seeking and dealing with feedback. ● Having confidence they are correct. ● Positive attributions about success AND failure. ● How good they are at help-seeking.	
The individual	Praise directed to the effort, self-regulation, engagement, or processes relating to task/performance: ● eg, "You're really great because you have worked hard to complete this task by applying this concept" NOT "good girl".	The most common, but most dangerous kind of feedback. Tends to be too general and too personal. Feedback should rather emphasize what the individual has done (or could do), not who they are.

Conclusion

Successful feedback is that which leads to action on the part of the teacher or learner and closes the formative assessment loop. Teachers should be very specific about their feedback and what to do in response, and should encourage students to see mistakes as opportunities to improve.

What we know

- Feedback is central to the teaching and learning process and keeps it on track.
- It closes the loop between Assessment for Learning and formative assessment by enabling action by the teacher and/ or learner.
- Letting students know when they get things right, and why they are correct is even more important than pointing out mistakes or errors.
- Specific feedback is more useful than general, particularly where this relates to previous work students have done.
- Praise should be specific to what the student has done.
- Feedback should encourage and not demoralize learners.

About the author

Steve Higgins is Professor of Education at Durham University in the UK. He has an interest in classroom interaction and the role of the teacher in supporting learning particularly by developing meta-cognition and self-regulation, particularly where digital technologies are involved. (s.e.higgins@durham.ac.uk)

Further reading

Black P, Harrison C, Lee C, Marshall B, and Wiliam D (2003), *Assessment for Learning: Putting It into Practice.* Buckingham, UK: Open University Press.

Hattie J (2008), *Visible Learning.* London: Routledge.

The Education Endowment Foundation (EEF) in the UK promotes research-informed practice through its Teaching and Learning Toolkit which has entries on a number of different approaches to support effective teaching:
http://educationendowmentfoundation.org.uk/toolkit/

Research used in this article

Black, P., Harrison, C., Lee C., Marshall, B., and Wiliam, D. (2004), Working Inside the Black Box: Assessment for Learning in the Classroom, *Phi Delta Kappan*, 86 (1) 9–21.

Harlen, W., and Deakin-Crick, R. (2002), *A Systematic Review of the Impact of Summative Assessment and Tests on Students' Motivation for Learning*. In: Research Evidence in Education Library. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London. http://eppi.ioe.ac.uk/cms/?tabid=108

Hattie, J., and Timperley, H. (2007), The Power of Feedback, *Review of Educational Research* 77(1) 81–112.

Kluger, A.N., and DeNisi, A. (1996), The Effects of Feedback Interventions on Performance: A Historical Review, A Meta-analysis, and a Preliminary Feedback Intervention Theory. *Psychological Bulletin*, 119 (2), 254–284.

Kingston, N. & Nash, B. (2011). Formative Assessment: A Meta-Analysis and Call for Research. *Educational Measurement: Issues and Practice*. 30.4 pp 28-37.