Formative assessment – assessment for learning

This paper is about formative assessment and how we can introduce it into teaching and learning.

What is formative assessment?

Summative assessment is:
- used for judgement
- assessment **of** learning

Formative assessment is:
- used for improvement
- assessment **for** learning

There are many definitions of formative assessment and feedback in the literature; for convenience and brevity, I will use these:

Formative assessment
"Any task or activity which creates feedback (or feedforward) for students about their learning. Formative assessment does not carry a grade which is subsequently used in a summative judgement."

Formative feedback
Formative feedback is any information, process or activity which affords or accelerates student learning based on comments relating to either formative or summative assessment activities."

Irons (2008:7):

Why do we assess students?

Black (1993) outlines three broad purposes of assessment:
1. the certification of student achievement (normally through summative assessment)
2. the accountability of educational institutions and the education system through the publication and comparison of results (summative results)
3. the promotion of learning through the provision of helpful feedback (normally through formative assessment and formative feedback).

Here we are concerned with assessment in the third sense, that is, the promotion of learning.

Formative assessment – some basic principles

Formative assessment is an integral part of the teaching and learning process and its aim is to promote learning and to motivate learners; it is assessment *for* learning. Summative assessment is the summing up or checking of learning at particular stages by, for example, testing or some kind of formal assessment. Such testing may involve making judgements about learners against national standards as, for example, in an essay or an examination: it is assessment *of* learning.

Black and Wiliam provide some basic principles to support the use of formative assessment, which are worth quoting in full. Their work is the result of research in schools but the conclusions are equally valid for students of all ages, consequently, I have substituted the word 'student' for 'pupil' in the following:

> 'the research indicates that improving learning through assessment depends on five, deceptively simple, key factors:
> * the provision of effective feedback to students;
> * the active involvement of students in their own learning;
> * adjusting teaching to take account of the results of assessment;
> * a recognition of the profound influence assessment has on the motivation and self-esteem of students, both of which are crucial influences on learning;
> * the need for students to be able assess themselves and understand how to improve;
>
> At the same time, several inhibiting factors were identified. Among these are:
> * a tendency for teachers to assess the quantity of work and presentation rather than the quality of learning;
> * greater attention given to marking and grading, much of it tending to lower the self-esteem of students, rather than to providing advice for improvement;
> * teachers not knowing enough about their students' needs.'
>
> (Black and Wiliam, 1998)

What formative assessment is not:

* Separate from learning and teaching
* Extra work for lecturers (or it shouldn't be)
* Graded
* 'Staged' assessment (although reading and discussing drafts can be formative)
* 'High stakes' – i.e. has important consequences for a student's progression or achievement

Formative assessment – what does it form?

Formative activities and formative assessment are about *forming* the *student* (or, more importantly, forming themselves). It is not about forming their assessment, although this could be a small part of the bigger picture.
Formative assessment is a key part of developing students who are:

- independent learners
- lifelong learners
- reflective learners
- creative
- have high employability skills
- self-motivated
- critical thinkers

Formative assessment also provides opportunities to 'form' the lecturer and the teaching in that it not only helps you to monitor students' progress and become aware of difficulties in learning, it also provides information to help you adjust and adapt your teaching as you go along.

PDP opportunities

Formative assessment is, essentially, about 'forming' the students and their learning – not forming the assessments. Clearly, students play a major role in their own self-formation. As such formative assessment, properly integrated with learning and teaching offers rich PDP possibilities.

Formative assessment or formative 'activities'

Properly understood and used, formative assessment is an integral part of teaching and learning. In many cases, formative assessment is indistinguishable from teaching and learning. We could argue that all elements of a programme of study should be formative, not just the assessment, otherwise it's probably not worth doing.

It is probably more appropriate to talk of **formative 'activities'**, rather than formative assessment. For example, a tutorial is one of the best examples of a formative activity.

Formative assessment – doing it

Formative activities and formative assessment should not, necessarily, create extra work (particularly setting and marking extra work) for lecturers. This might be an opportunity to encourage students to be more pro-active.

Many things we already do, for example, tutorials, seminars, groupwork can be formative, the key is recognising the **potential for feedback.**

Here are some other suggestions for formative activity/ assessment:

- Tutorials and seminars as formative activities
- Case studies
- Using journals (especially to support and inform tutorials) and PDP and, in professional courses, CPD
- Using higher-level questions and discussion
- Concept mapping
- Problem-based learning and case studies with associated feedback
- Peer-assessment activities
- Feedback on observed activities (e.g. OSCEs in Health programmes or observation of teaching on TT programmes)
- 'Critique' sessions as used in arts subjects – can they be adapted for use in other subjects?
- Reflection
- Encouraging students to keep 'project' journals
- Student presentations – self and peer assessment
- Individual learning and development plans – incorporate in PDP
- Peer or self assessment
- Wikis
- Blogs
- Discussion forums
- Discussing feedback on drafts
- IS proposals
- 3rd or 2nd year students 'teach' or 'mentor' 2nd or 1st year students.
- **Above all** – discussing assessment, especially formative assessment, with our students.

The importance of feedback

The key to student learning and continuous improvement is high quality feedback that it is detailed and clearly related to module learning and programme learning outcomes and which, rather than simply giving information which justifies the grade given, provides information and support for further learning and development.

Hattie's (1987) review of 87 meta-analyses of studies what affects student achievement, found that the most powerful single influence is high-quality feedback. Similarly, Black and Wiliam spent four years studying and reviewing research into feedback which is closely linked to 'formative assessment'. They concluded, in agreement with Hattie that formative assessment has a huge effect on learning quality.

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Good feedback practice

Good feedback practice is broadly defined here as anything that might strengthen the students' capacity to self-regulate their own performance.
A synthesis of the research literature (Nicol and McFarlane-Dick, 2007) led to the following seven principles:

Good feedback practice:
1. helps clarify what good performance is (goals, criteria, expected standards);
2. facilitates the development of self-assessment (reflection) in learning;
3. delivers high quality information to students about their learning;
4. encourages teacher and peer dialogue around learning;
5. encourages positive motivational beliefs and self-esteem;
6. provides opportunities to close the gap between current and desired performance;
7. provides information to teachers that can be used to help shape teaching

Appendix 1

Other views

"… any activity during a module which provides information to students and tutors on their progress."
Bloxham, S. and Boyd, P. (2007)

"… formative assessment and formative feedback should provide positive student learning opportunities, encourage dialogue and discourse between students and teachers, enhance the student learning experience and provide motivation for students." (Irons, 2008:8)

"The basic idea is straightforward: formative assessment contributes to learning by informing students about their performances, creating the conditions for loops of reflection and action that, in theory at least, spiral ever more widely outwards."
(Knight and Yorke, 2003:32)

"Assessment for learning is any assessment for which the priority in its design and practice is to serve the purpose of promoting students' learning. It thus differs from assessment designed primarily to serve the purposes of accountability, or of ranking, or of certifying competence. An assessment activity can help learning if it provides information to be used as feedback, by teachers, and their students, in assessing themselves and each other, to modify the teaching and learning activities in which they are engaged. Such assessment becomes 'formative' when the evidence is actually used to adapt the teaching work to meet the learning needs."
(Black et al. 2003: 9)

*"The **tutorial**, whether face-to-face or online, is concerned with the development of the student's powers of thought."*

One of the main functions of tutorials is:

"As a regular meeting ground for the checking of student progress, locating misunderstandings in lectures and an opportunity to give special scrutiny to a piece of the students work." (Jacques and Salmon, 2007)

"Good formative assessment means designing learning sequences that afford plenty of opportunities for good learning conversations arising from feedback on good tasks that are matched to learning outcomes. Good formative assessment therefore implies thinking about learning, teaching and assessment, not just about assessment."

Knight, P. *Formative and Summative, Criterion and Norm-referenced Assessment*, LTSN Generic Centre, Assessment Series No. 7 (available online)

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Hattie, J.A. (1987) 'Identifying the salient facets of a model of student learning: a synthesis of meta-analyses', *International Journal of Educational Research,* Vol. 11: 187 - 212

Irons, A. (2008) Enhancing Learning through Formative Assessment and Feedback London: Routledge

Jaques, D. and Salmon, G. (2007) Learning in groups: a Handbook for face-to-face and online environments Abingdon: Routledge
Very good on the formative value of seminars and tutorials

Knight, P. *Formative and Summative, Criterion and Norm-referenced Assessment,* LTSN Generic Centre, Assessment Series No. 7
http://www.bioscience.heacademy.ac.uk/ftp/Resources/gc/assess07Keyconcepts[1].pdf
Especially useful for the 'Fifty Assessment Techniques'

Knight, P.T. and Yorke, M. (2003) Assessment, Learning and Employability Maidenhead: Open University Press

Nicol, D. and McFarlane-Dick, D. (2007) *Rethinking Formative Assessment in HE: a theoretical model and seven principles of good feedback practice.*

http://www.heacademy.ac.uk/assets/documents/assessment/web0015_rethinking_formative_assessment_in_he.pdf