Chapter 9

Making sense of assessment and feedback

Overview

Framed by a holistic conception of assessment this chapter provides an overview of the key principles of effective assessment that includes feedback and demonstrates how these principles can be applied effectively within school and higher education contexts. We will argue the importance of supporting students to manage their own learning through enabling them to effectively self-monitor their own progress in learning. Students need to have a clear idea of their current standard, the standard required, and an understanding of how to bridge the gap between these positions (Sadler, 1989; 2010) as an essential part of sustainable assessment practice (Boud, 2000; Hounsell, 2007), and most importantly, a will to do so. In considering the will and desire aspect of learning, we acknowledge a need for a greater focus on the emotional dimension of feedback and associated student resilience in learning as highlighted in chapter eight.

Introduction: defining assessment and feedback

Our holistic definition of assessment sees assessment and feedback processes as integral elements of learning, whereas more narrow definitions equate assessment purely with measurement (Evans, 2013b). In fact, the failing of assessment feedback strategies has been attributed to too much emphasis being placed on the grading function of assessment and not enough attention focused on assisting students to learn (see Wiliam, 2011).

Black and Wiliam's (1998) *Inside the Black Box* galvanized interest in formative assessment with this work being taken forward by the Assessment Reform Group who as part of the publication of *Beyond the Black Box* (ARG, 1999) highlighted the importance of assessment for learning rather than assessment of learning (visit Assessment Reform Group and New Zealand's Education Ministry websites for summaries). While the ARG's (2002) ten principles of assessment for learning listed below may be well known, the manner in which they have been implemented in practice has been variable.

Assessment, according to the ARG

- should be part of effective planning
- focuses on how students learn
- is central to classroom practice
- is a key professional skill
- is sensitive and constructive
- fosters motivation
- promotes understanding of goals and criteria
- helps learners know how to improve
- develops the capacity for self-assessment
- recognizes all educational achievement.

A key problem in this regard has been the lack of consensus surrounding definitions of both *formative assessment* and *assessment for* and *of learning (AfL* and *AoL)* (see Wiliam, 2011 for an overview). Despite the best efforts of the ARG, the term *formative assessment* and the effective use of the ideas underpinning the strategy have been reduced in many instances to a limited association with measurement rather than AfL being seen as an integral part of learning. In England this has been, in no small part, due to the government's hijacking of the term AfL as part of policy and isolating it to emphasize the monitoring of pupils' progress (DfES, 2008). Eleanore Hargreaves (2005) echoes these sentiments in her exploration of teachers' conceptions of assessment for learning in that although the AfL principles place an emphasis on a *process* rather than a *performance* view involving active student engagement, in reality the *Black Box* became synonymous with a product view of assessment for learning, emphasizing measurement with teachers assuming most of the control: not what Black and Wiliam had intended. Wiliam as reported by Stewart (2012) argued that in retrospect the biggest mistake that was made was in the use of the term *assessment* rather than *better teaching*.

Such unsatisfactory interpretations that equate formative assessment to assessment for learning (AfL) and summative assessment representing assessment of learning (AoL) have also been extremely unhelpful, as in reality the picture is far more complex (for example, summative feedback can serve to inform future performance). Eleanore Hargreaves (2005, p. 224) has argued that these two approaches (AoL and AfL) are better conceived as forming two ends of a spectrum with 'a conception of knowledge as external to the learner and fixed—at one extreme [*AoL*]; and a conception of knowledge as constructed or co-constructed by the learner/s and as fluid [*AfL*] at – the other extreme.' An alternative perspective contrasts *cognitivist* approaches to assessment, which include feedback with a directive telling, and corrective approach from an expert to a passive recipient, with *constructivist* approaches, which are seen as more facilitative and dialogic. However, these should not been seen as opposite ends of a spectrum as they are not mutually exclusive (Evans, 2013b). Fundamentally, good assessment including feedback is about providing the right approach to support task, individual and contextual needs.

When considering what leads to more effective use of assessment in learning, an enhanced role for the pupil in assessment features, for example in Wiliam and Thompson's (2008) elaboration of formative assessment, building on the work of Royce Sadler (1989, 2010). Wiliam (2011) has argued that for assessment to support learning a number of conditions are required. He has urged that evidence is needed to indicate what kinds of instructional activities are likely to result in improved performance; which activities, that is, will engage learners in actions to improve learning). In this model, assessment for learning is presented as five key strategies and one cohering idea. The five key strategies are: engineering effective classroom discussions, questions, and learning tasks; clarifying and sharing learning intentions and criteria for success; providing feedback that moves learners forward; activating students as the owners of their own learning; and activating students as instructional resources for one another (Wiliam and Thompson, 2008). The cohering idea is that evidence about student learning is used to adapt instruction better to meet learning needs; in other words, teaching is adaptive to the student's learning needs and evidence from the assessments is used by teachers, learners, or their peers to improve instruction (ibid.). An important aspect of this model is the active engagement of the learner in the learning process, which is also evident in the Organisation for Economic Development and Co-operation's (OECD) (2013) identification of assessment policy priorities arising from an evaluation of assessment and evaluation practice in 28 OECD countries. Key priorities in their report include the following:

1 Integrate student assessment and school evaluation into a single framework: 'This requires a holistic approach to building a complete evaluation and assessment framework in view of generating synergies between its components, avoiding duplication of procedures and preventing inconsistency of objectives.' (OECD, 2013, summary p. 10).
2 Align student learning goals with evaluation and assessment.
3 Focus on the improvement of classroom practices and building on teacher professionalism.
4 Effectively conceive the accountability uses of evaluation and assessment results.
5 Place the student at the centre, fostering engagement in learning through using formative assessment strategies.
6 Go beyond measurement in educational evaluation. Measures of performance should be broad enough to

capture the whole range of student learning objectives.
7 Build capacity for evaluation and assessment.
8 Design evaluation and assessment procedures that are fit for purpose.
9 Balance national consistency with meeting local needs.
10 Implement evaluation and assessment policy successfully.

Building on the OECD recommendations and Lord Bew's report (Department for Education (DfE), 2011b) on the uses of data derived from summative assessments, the British Educational Research Association (BERA) reconvened the UK Assessment Reform Group to emphasize the importance of the potential of the *formative* use of summative assessment (see BERA, 2013b) in response to the English DfE's proposals for assessment of primary school pupils.

In summary, both formative and summative assessment can support students' learning; the nature and role of feedback in supporting students' learning is of paramount importance. Given the confusion surrounding the nature of formative and summative assessment it is important to establish a clear and shared definition of feedback.

How feedback is defined and enacted is complex. Much depends on how the role of feedback is perceived. Hattie and Timperley (2007, p. 81) emphasize a *product* view of feedback: 'information provided by an agent (e.g. teacher, peer, book, parent, self, experience) regarding aspects of one's performance or understanding'. Boud (2000) and Hounsell *et al.* (2008) have both placed greater emphasis on feedback as an *integral part of learning* to include *feed-forward* and *feed-up* where feedback is seen as supporting learning in the immediate context as well as for future learning gains. Ramaprasad (1983) and Sadler (1989, 2005) argued that feedback is more than about the provision of information: it is about *closing the gap between where a learner is and where they need to get to* in order to make progress.

Carol Evans (2013b) in her definition of feedback emphasizes the notion of *feedback exchange*, which implies an important role for both student and teacher in supporting the development of learning. She acknowledges that feedback can be vicarious, and that it can be drawn from within and beyond the immediate learning context and from a vast array of sources, highlighting the importance of student information networks. According to Evans feedback, as an integral part of assessment, '… includes all *feedback exchanges* generated within assessment design, occurring within and beyond the immediate learning context, being overt or covert (actively and/or passively sought and/or received), and importantly, drawing from a range of sources.' (2013b, p. 71).

Evans (2013b) emphasizes the importance of student agency in feedback. All assessment for learning models should include, as part of the assessment design, opportunities for students to use feedback to improve their work. The efficacy of the feedback process is highly dependent on how the role of different agents (e.g. teacher, student, peers/colleagues, family, resource networks) is perceived by both the learner and the teacher. Are students seen as active participants in the feedback process or as passive recipients of feedback? It is interesting that although the *Teachers' standards* in England (DfE, 2011a) emphasize that the teacher's role is to '*encourage pupils to take a responsible and conscientious attitude to their own work and study'* (Standard 2), the rhetoric positions the student as a passive receiver rather than as an active agent in the assessment process. Regular feedback from the teacher matters, but so does the teacher's role in stimulating students to take greater responsibility by seeking out, interrogating, and giving feedback, all of which enhance their self-assessment and peer-assessment abilities. This prevents them from becoming passive consumers, and enables them to cope with the changing demands of 21st-century learning environments and support their own life-long learning and that of others. The need to see assessment and feedback as an *ongoing dialogue* rather than as information transmission is a key feature of sustainable assessment practice and is prominent in current effectiveness debates. It is a crucial dimension of 21st-century learning environments in which information is readily available from a variety of sources: environments in which the teacher is seen not as the font of all knowledge, but as a catalyst of a process of learning linked with a holistic notion of pedagogy.

In sum, how feedback is enacted depends on whether or not it is viewed as integral to learning and teaching. It also depends on how the purpose of feedback is perceived by the teacher and learner, for example

as a tool that is challenging *vs* corrective, facilitative *vs* telling, informative *vs* reinforcing, motivational (asking what is good, and what can be better) *vs* fault-finding (pointing out what has not been done and not achieved), inquiring *vs* measuring; learning-focused *vs* performance-focused) (see Scott *et al.*, 2014).

What is sustainable feedback and why does it matter?

Sustainable assessment is about the increasing role of the student in assessment practice and the changing role of the teacher in order to facilitate student autonomy in the process (Evans, 2013b; Scott *et al.*, 2014). Boud (2000) defines it as practices that meet students' immediate assessment needs whilst not compromising the knowledge, skills, and dispositions they require to develop lifelong learning activities (see also Carless, 2011). As part of sustainable assessment, Hounsell (2007) discusses sustainable feedback and highlights the importance of three related areas of activity: feedback carrying impact beyond the immediate task; enhancing the student role in generating, interpreting and engaging with feedback; and the development of learning and teaching environments that promote dialogue about learning. Carless (2011) and Carless *et al.* (2011) in defining sustainable feedback stress the metacognitive potential of dialogic activities which can support students in generating and using feedback from self and others as part of an ongoing process of becoming autonomous self-regulating learners. In all three definitions, emphasis is on developing student self-regulatory ability; this requires training on the part of students *and* teachers to develop co-regulatory feedback practice (Price *et al.*, 2007).

While the importance of sustainable assessment has been clearly established, supporting its development within the school context has not been easy. Nicol (2008) has highlighted, for example, the extent to which students can and should be involved in all aspects of the assessment design. Inadvertently, the great emphasis placed on student monitoring and target setting has encouraged students' dependence rather than independence in their learning (e.g. *The Assessment for Learning Strategy*, DFES/AfL, 2008). Teaching to the test has led to criteria compliance: although immediate targets have been satisfied in terms of the percentage pass rate of students, preparing students to self-assess their own work in order to manage their future learning has been neglected. The lack of a strong focus on students becoming owners of their own learning is identified by Stewart (2012) quoting Wiliam, as a fundamental reason for the lack of effectiveness of such assessment for learning strategies within schools.

Reviewing the literature: signposting key themes

A considerable amount of work on assessment including feedback has been undertaken in school and higher education contexts. In supporting learner transitions from school to higher education contexts, evidence from school-based research suggests that there need to be more opportunities for oral dialogue as opposed to written feedback, a greater focus on how pedagogical strategies can create the conditions for effective learning by supporting students in taking more responsibility for their own learning, better alignment between formative and summative assessment, and an increase in the attention focused on innovative practice in summative assessment (Black and McCormick, 2010). Evans (2012a) has also commented on the need to bridge the higher education and school research and practice gap in order to enhance formative assessment and feedback practice.

Whilst acknowledging differences between the school and HEI sectors including specific contextual demands (Sadler, 2010), there are a number of overarching principles of good assessment and feedback which are relevant to all those engaged in enhancing learning and teaching. Much work being undertaken within higher education in developing assessment feedback practice is of direct relevance to schools (Evans, 2013b), and in order to facilitate student transitions from school to higher education and into the workplace it is vital to develop collaborative practice within this area. A key priority for both sectors is in supporting students to become more independent in their learning and the substantial bodies of work on self-regulation, peer feedback, and e-assessment feedback within higher education are of relevance to the school sector.

Does feedback work?

Feedback can be very powerful (Black and Wiliam, 1998; Hattie and Timperley, 2007), however its impact is highly variable (Evans, 2013b). The aim of feedback should be to enable the *gap between an actual level of performance and a desired learning goal to be bridged* (Ramaprasad, 1983; Sadler, 1989). It is the use and application of feedback to positively impact performance that is of paramount importance (Wiliam, 2011). Evans (2013b) drawing on constructivist, socio-critical and socio-cultural perspectives used a conceptual framework, *the Feedback Landscape* (see Figure 9.1) to examine affordance and barriers for learners and teachers (including individual and contextual variables) in the seeking, giving, and application of assessment feedback. The fundamental issue is that even if all the conditions for effective feedback are met, it is the *will and skill* on the part of the learner that are of paramount importance in influencing outcomes. This leads to the question of what level of investment should a teacher make given the paucity of clear research findings. In answering this question Evans (2013b), drawing on DeNisi and Kluger's (2000) work, has argued the case for the implementation of holistic assessment designs that place greater potential on feed-forward compared to feedback, and cites extensive research literature demonstrating the actual effectiveness of such initiatives.

Questions for reflection

Using the *Feedback Landscape* diagram Figure 9.1

- Map the sources of feedback that you rely on and identify which are your strongest links and which sources of support could be developed.
- Ask students to map the sources of feedback that they mainly use in order to develop their own understanding of their feedback-using patterns.
- Ask students to discuss with each other how they can develop their feedback gathering skills. (Sources can be other people within and external to school: other teachers, peers within their own class or other classes and year groups, social groups; resources can be of many different kinds, e.g. books, TV, internet, smartphone, apps, etc.).

What are holistic assessment designs?

Holistic assessment designs can be enacted in a number of different ways but they share common principles, which include:

- feedback is ongoing and an integral part of assessment
- feedback guidance is explicit
- greater emphasis is placed on feedforward compared to feedback activities
- students are engaged in, and with, the process
- the technicalities of feedback (e.g. timing and nature of feedback; availability of resources; clarity regarding assessment requirements) are attended to in order to support learning

(see Evans, 2013b, pp. 80–83 for extended discussion and additional references).

These features of design have been repeatedly identified as important in school contexts (Assessment Reform Group, 1999; Wiliam and Thompson, 2008) and in higher education settings (Boud *et al.*, 2010; Carless *et al.*, 2006; Nicol and MacFarlane-Dick, 2006). The practical application of these features is evidenced in C. Evans's (2013b) twelve key principles of effective assessment design (see Figure 9.2). These principles relate to five main interrelated areas of concern, which we will now discuss in more detail; these areas are:

- assessment design
- the role of the student

- preparation and housekeeping issues
- clarifying what is good
- the nature and design of feedback.

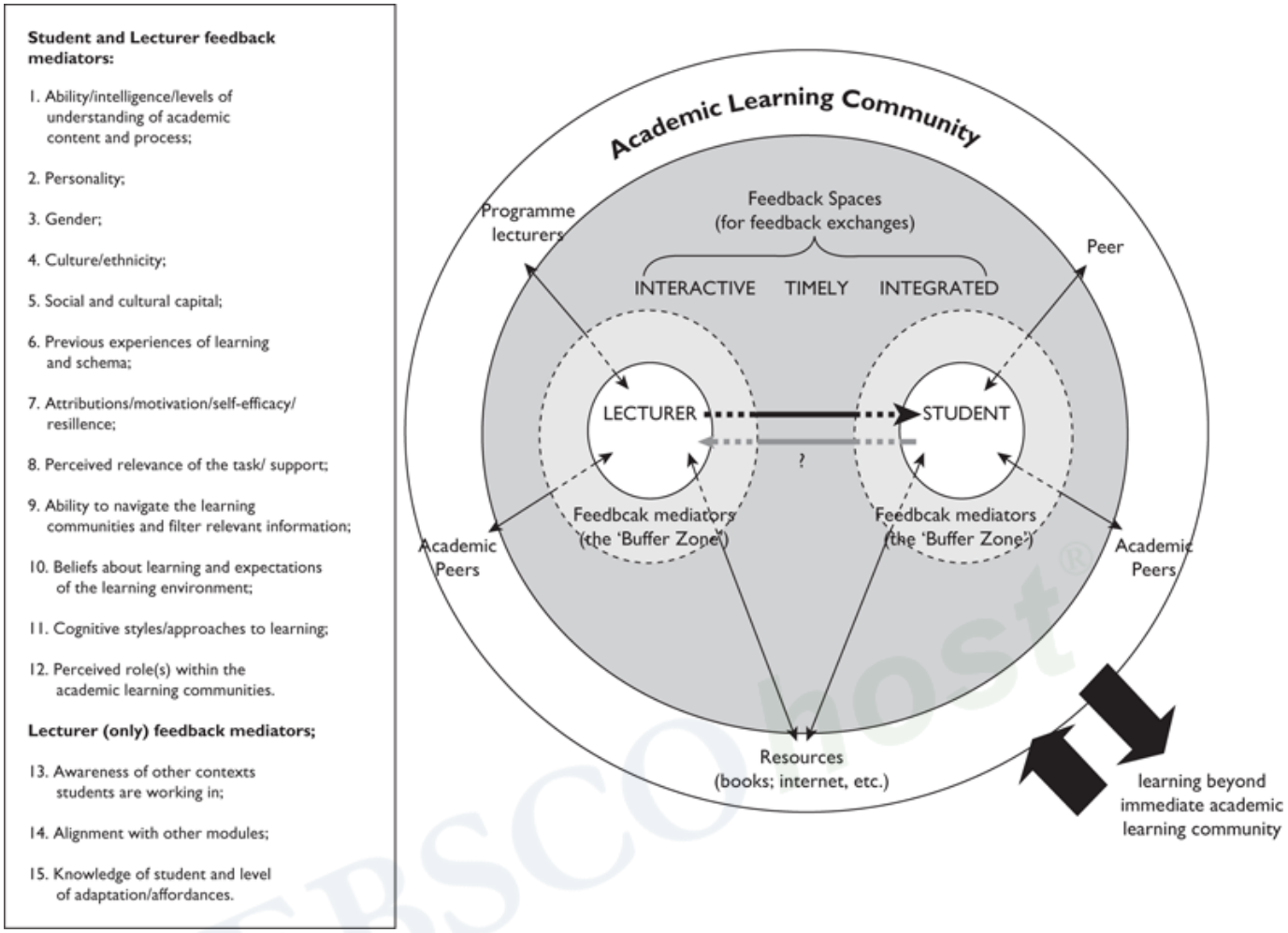

Figure 9.1 The feedback landscape

Evans, 2013b, p. 98

1 Ensuring an appropriate **range and choice** of assessment opportunities throughout a programme of study.
2 Ensuring guidance about assessment is **integrated** into all teaching sessions.
3 Ensuring **all resources** are available to students via VLEs and other sources from the **start of a programme** to enable students to take responsibility for organizing their own learning.
4 Clarifying with students how **all elements of assessment fit together** and why they are relevant and valuable.
5 Providing **explicit guidance** to students on the requirements of assessment.
6 Clarifying with students the different **forms and sources of feedback** available, including e-learning opportunities.
7 Ensuring early **opportunities** for students to undertake assessment and obtain feedback.
8 Clarifying the **role of the student** in the feedback process as an active participant rather than merely as a receiver of feedback with sufficient knowledge to engage in feedback.
9 Providing opportunities for students to work with **assessment criteria** and to work with examples of good work.
10 Giving **clear and focused** feedback on how students can improve their work including **signposting** the most important areas to address.

11 Ensuring support is in place to help students develop **self-assessment skills** including **training in peer feedback** possibilities, including peer support groups.
12 Ensuring **training opportunities for staff** to enhance shared understanding of assessment requirements.

Figure 9.2 Key features of effective feedback design

Adapted from Evans, 2013b, p. 79

Assessment design: alignment

Assessment design really matters. Good teaching can be undermined by poor assessment design. The notion of alignment is of paramount importance and can be looked at from a number of related perspectives. First, Biggs's (1999) and Biggs and Tang's (2011) notion of constructive alignment (the extent to which there is a match between learning objectives, teaching approaches and the nature of assessment) is of paramount importance. Second, while much has been made of the value of formative assessment, it is less likely to lead to successful learning outcomes if it is not closely aligned to the requirements of the related summative *assessment* (Boud and Associates, 2010). Third, given the importance of being able to assess one's own work as part of lifelong learning, assessment design needs to be aligned to support students to develop self-assessment skills and capabilities (Boud and Lawson, 2011). Fourth, alignment also refers to how all elements of the assessment process fit together. Students need to be clear about how each assessment element is related to the others. A key dimension of this is the student being able to see the relevance and appropriateness of the teaching strategies and assessment tasks employed in relation to summative assessment, as well as the potential benefits of such beyond summative assessment (e.g. relevant to their lives, and future employment). However, even where changes have been made to ensure constructive alignment between educational objectives and assessment (e.g. where students are encouraged to develop a deep approach and assessment is focused on testing such student understanding) (Biggs *et al.*, 2001; Struyven *et al.*, 2006), if students do not perceive the assessment as relevant and authentic, they may not utilize deep approaches to learning (Balasooriya, *et al.*, 2011; Ferla *et al.*, 2009; Gijbels *et al.*, 2008). Fifth, alignment between organizational, departmental and individual teachers' enactment of assessment practices is very important (James and Pedder, 2006).

The role of the student

Fundamental to the development of holistic assessment is the increased role of the student in the assessment process (Carless, 2011), something which should permeate all decisions about assessment and feedback design. Central to such decisions about student agency and autonomy in the assessment process are notions of '*will' and 'skill'*. Students' personal histories (experiences of assessment), their levels of self-regulation, knowledge and skills vary; consequently, some students are more willing and able than others to make use of the opportunities afforded to them as part of holistic assessment design. The notion of *choice and perception of choice* in assessment, and how both teachers and students manage this, is very important. The provision of choice in the nature of assessment for a student who is low on self-regulating ability (Evans, 2013b) could be seen as negligent by the teacher given the student's relative lack of ability to choose wisely: the issue of *directed choice* is important here. The importance of supporting students to make *informed choices* as part of self-regulatory development should be a prime focus for teachers along with being explicit regarding the criteria requirements for different forms of assessment. Furthermore, students vary in their feedback seeking, feedback giving and feedback using skills. Joughin (2009) identified that some students were very *cue -conscious* and *cue-seeking* in knowing how to access feedback well. However, others he described as '*cue deaf*' in that they were not active feedback seekers and found it more difficult to utilize the feedback opportunities that were present. Similarly, Evans (2012b; 2014) identified *'savvy feedback seekers'* who were more able than others to access and filter feedback from various networks (self, peers, teachers, family, internet, books etc.). The challenge is in how best to support students to develop these life-long learning skills as part of effective assessment design so that they are best able to meet twenty-first-century learning challenges. Dweck, (1986, p. 1046) noted that 'the procedures that bring about more adaptive motivational patterns are the ones that incorporate challenge, and even failure, within a learning-oriented context and that explicitly address underlying motivational mediators'. Therefore, supporting student access to assessment and feedback requires consideration of the following areas as highlighted in the Personal Learning Styles Pedagogy (see section D (ix) of the PLSP Framework and also Tables 8.19 and 9.1):

- exploring students' previous experiences of feedback and the emotional dimension of feedback
- involving students in design of curriculum and assessment
- exploring students' networks of support
- supporting student self-regulation through the design of tools and environments to enable students to self- and peer assess providing ongoing training to students in how to give and make use of feedback opportunities
- clarifying the role of the student in the process and what sources of feedback available.

In attending to these areas the research tells us a great deal. Students' beliefs about learning impact on how they see their role in feedback (Evans and Waring, 2011a; Price *et al.*, 2010). Not enough attention has been given to the emotional dimension of feedback (Evans, 2013b). A key reason why feedback may not work is that even if feedback is given at the task level, students may interpret it at the personal level and this is connected to their levels of self-efficacy (DeNisi and Kluger, 2000). In addressing potential feedback issues, it is important to consider how the design of assessment can support students in the adoption of *mastery*, rather than *self-worth* or *learned helplessness motivations* as discussed in chapter eight. Consequently, in supporting the learning of all students, key questions for teachers to ask include:

Table 9.1 Using the Personal Learning Styles Pedagogy to support assessment design

Components of a Personal Learning Styles Pedagogy	Examples of assessment practice
A. Exploration of student and teacher beliefs/modelling and support	
(i) Focus on the learning histories of student and teacher	Foci (Example for A (iii) sub-component)
(ii) Holistic understanding: Consideration of the whole experience of the learner	• Exploration of students' experiences of assessment feedback including peer
(iii) **Exploration of learner (student and teacher) beliefs about learning (e.g. ability, self-efficacy, identity and sense of fit**	

within learning contexts) (iv) Enhancing learner awareness and application of styles as part of ongoing instruction on individual learning differences. Understanding of individual differences central to the design of learning environments	assessment and feedback • Mapping of assessment and exploration of how assessment tasks are relevant to the immediate requirements of assessment and professional practice • Examination of student aspirations and intentions regarding their aims and intentions in relation to assessment • Explication of the student role within the feedback process • Explicit attention given to the emotional dimension of feedback
B. Careful selection and application of models	
(i) Judicious and informed use of instruments/styles models (ii) **Critical analysis of styles as part of instruction on individual learning differences. Appropriate application of styles models: instruments used as metacognitive tools to support understanding of the learning process** (iii) An integrated approach: awareness of the interdependence of cognitive style and other individual learning differences – role of cognitive style as a moderator variable (iv) Development of cognitive styles as an integral element of culturally responsive pedagogies	Foci (Example for B (ii) sub-component) • Analysis of student assessment preferences from a cognitive styles perspective, including analysis of student self-regulation strategies • Explicit discussion of strategies to manage assessment formats that students may find less preferable, and sensitivity afforded to cultural differences when planning assessment activities • Students working with teachers to design assessment rubrics to ensure access to requirements of assessment and shared understandings • Students supported in the development of seeking, receiving and acting on feedback – to develop 'savvy feedback skills'. • Peer feedback and support models negotiated and discussed with students in order for them to develop more effective networks of support
C. Optimizing conditions for learning/sensitivity to learner context	
(i) **Sensitivity to needs of the learner: recognizing unique starting points. Addressing the emotional dimension of learning: working with students to ensure readiness (will and skill)** (ii) Enabling a positive learning environment: focusing on	Foci (Example for C (i) and C (iv) sub-components) • Clear mapping of all assessment within handbooks with explicit outlining of the student role in

supporting students during important transition points in their learning (iii) Care afforded to how new ideas introduced as to the level of cognitive complexity in order to support learner flexibility (iv) **Supporting learners' integration into communities of practice** (v) Attention given to learners' networks of support and development of identity within academic context	assessment • Pre-course preparation focused on tasks relevant to the level of experience of the student and on essential information that the students need to know • Provision of all resources on the virtual learning environment to ensure ease of access • Timing of assessment negotiated with students in relation to academic and professional practice requirements • Clear signposting of key resources • Preparation tasks sent out in advance of taught days with subsequent reminders to ensure learners warmed up for learning. • Tasks signposted as to their level of importance. • Early diagnosis of student learning needs – e.g., requiring students to produce a two-page outline for assignments rather than full draft • Post-teaching day follow-up tasks in relation to areas identified as requiring more attention using feedback within sessions
D. Design of learning environments	
(i) Housekeeping attended to (organization of resources; information for students and lecturers etc.) (ii) Teaching methods informed by an understanding of cognitive styles and attuned to the requirements of the content and context (constructive alignment) (iii) Aimed at supporting learners in developing understanding of learning to think within a specific discipline and to be become part of that community (iv) Judicious use of accommodation of cognitive styles and the concept of matching (v) Judicious approach in promoting development of the most appropriate cognitive styles for specific contexts (vi) Teaching strategies aimed at stretching the student through careful addition and removal of scaffolding and sufficient constructive friction:aimed at developing and broadening cognitive styles and strategies as and when appropriate (vii) **Designs focused on encouraging learners to adopt deeper and more self-regulated/directed approaches to learning (constructivist approaches with a strong emphasis on the development of metacognitive skills)** **Supporting learners to reflect critically on the learning process**	Foci (Example for D (vii) and D (viii) sub-components) • Authentic assessment opportunities of direct relevance to student learning and workplace contexts • Opportunities for dialogue within taught sessions about the nature and requirements of assessment • Explicit discussion of ideas and concepts in relation to assessment requirements • Explicit discussion of assessment criteria – students working with and developing criteria with tutors • Coaching activities whereby students give and receive feedback on their work • All materials available for

to include self- and co-regulation. Appropriate use of tools to support process	learners to be able to self-manage • Explanation of the purpose and nature of feedback given to all students – students encouraged to ask specific questions of their formative assessment teacher • Focused feedback from teachers to students on key points • Feedback focused on how to improve. Prioritized and focused on specific areas for development rather than an 'overfull shopping bag of feedback' • Feedback acknowledging the strengths of performance prior to focusing on areas for development • The focus of peer feedback is made explicit – students required to clarify and agree the where and what of feedback with peers • Students required to reflect on their self-assessment skills as part of summative assessment
Components of a Personal Learning Styles Pedagogy	*Examples of assessment practice*
(viii) **Maximizing learning opportunities: design of learning environments focused on enhancing awareness of different learning strategies through explicit guidance and exposure to diverse learning experiences: different ways of seeing and doing, observation, modelling, practice, application, reinforcement, and transfer** (ix) Authentic and appropriate assessment designs to support the development of deep approaches to learning (x) Appropriate use of technology to support learning	
E. Supporting learner autonomy: choices in learning / student voice	
(i) Focus on the centrality of the learner as a co-constructor of knowledge (ii) Focus on the role of the student in managing the learning process. Learners as co-designers of their learning experience(s) (iii) Learner control afforded through design of curriculum (content, process, product) including e-learning possibilities (iv) Flexible designs facilitated through, for example, organization of resources to maximize access; choices in pathways through programmes; nature of assessment (v) **The importance of guided/informed choice for learners** (vi) Informed and responsible use of groupings individual and group work. Collaborative learning opportunities informed by understanding of styles (e.g. dangers/limitations of labelling, justification for groupings)	Foci (Example for E (v) sub-components) • Choice in assessment – guided support • Choice in the use of peer assessment • Peer feedback in the hands of the learner as part of summative assessment. Students required to reflect on how they have given, received and acted on feedback

- Do methods of assessment allow all students an equal opportunity to do well?
- Are students given opportunities to redo their work and to learn from their mistakes?
- How are high-achieving as well as low-achieving students' needs addressed?
- To what extent do students collaboratively support each other in their learning?
- How are teachers collaborating with each other to support students' learning needs?
- Are teachers able to create learning contexts in their classrooms and elsewhere in which students are not afraid of failing and where making mistakes is seen as a valuable part of the learning process rather than as threatening?

Anderman and Maehr (1994, p. 297) have stressed the need to move away from ability-focused *performance goals* towards *task focused mastery goals*: 'in spite of what an individual teacher might do to stress the value of learning for its own sake, to stress the role of effort and progress, to include all within the learning community, these efforts may be undermined if the school as a whole emphasizes grades, competition, and rewards …'; this is very difficult in high accountability systems. However, it is essential that teachers are able to distinguish between the two maladaptive styles in order to use the most appropriate intervention: 'While it may be useful to train 'helpless' students to attribute failure to low effort, to do so with self-worth motivated students may decrease persistence further' (Craske, 1988, p. 154).

'Failure must be redefined, so that it is not seen as evidence of personal inadequacy but as a necessary part of learning' (Galloway *et al.*, 1998, p. 129). The importance of training students to develop resilience including notions of fast failing, a term borrowed from Silicon Valley which has relevance to education contexts. Dweck (2006) has argued the need for teachers to cultivate with their students a *'growth mindset'* as opposed to a *'fixed mindset'*, the former identifying success with effort, continuing learning and a belief that intelligence can change, and the latter seeing success as based on inborn abilities and the fixed nature of intelligence (see also chapter eight). However the extent to which students' can develop certain abilities and be flexible learners has been challenged (Evans, 2013b; Kozhevnikov, 2007), with greater emphasis placed on supporting students in their strategy development to enhance what they can do, and to manage effectively what they cannot do, through adept use of strategies (Evans and Waring, 2009). Provision for student choice needs to be linked to appropriate support and safeguards with the assessment design as key elements of co-regulatory practice. Scott *et al.* (2014) noted that where students were given a free choice of assessment title in one module, the less self-regulatory students often chose poorly (e.g. trying to cover too broad an area of study; choosing a focus that was not well matched to their skills set; a lack of alignment with the requirements of the assessment criteria). To address this issue all students were asked to hand in a two-page draft plan which was analysed by their lecturers at the start of the module so as to ensure all students were given appropriate support from the beginning of their engagement with the task. This is an example of sustainable assessment in that choice was provided along with scaffolding in the form of timely feedback to support the students in becoming more self-regulatory, and more aware of the areas on which they needed to concentrate.

EXPLORING STUDENTS' NETWORKS OF SUPPORT

How students identify with an academic context (Bliuc *et al.*, 2011a, 2011b) and the nature and quality of networks they have and value (Evans, 2013b) influences learning outcomes. Early assessment of students' learning needs is important and this includes working with students to address their networks of support (e.g. within and beyond the school context involving friends, family, peers, resource networks – internet) (Webb and Jones, 2009). Connected to this is addressing assumptions made about students as digital natives and their ability to use technology to access suitable resources, as well as equity issues connected to different levels of access students may have to various learning resources. Training students in how to search effectively for relevant sources of information is important and represents one relatively straightforward way to minimize inequalities in student access to information. However, it is often overlooked due to the assumptions made by teachers about the digital native generation: therefore the equity issue also has to be addressed in the design of assessment tasks to ensure that certain students are not disadvantaged. From a cognitive and social perspective the F*eedback Landscape'* (Figure 9.1) can be used to support dialogue between students and teachers around the process of learning and use of feedback.

SUPPORTING STUDENTS' SELF-REGULATORY PRACTICE

To support students in managing affect, cognitions and actions as key components of self-regulatory practice (including self-monitoring) many have argued over the importance of involving students in dialogue with teachers and peers (Black and McCormick, 2010). Focused activities/interventions (e.g. discussion of criteria; self-checking feedback sheets, rubrics, reflective writing tasks, writing frameworks, group and individual marking exercises, modelling, coaching, testing) can be successful but require ongoing development and training in how to engage with them (Parker and Baughan, 2009). However, a key issue identified by Hattie and Timperley (2007) which undermines this is the teacher assuming too much responsibility and ownership of the learning process for his/her students. So while encouraging students to take more responsibility in the assessment feedback process students, teachers do need to support students so that they may be able to share their understanding of the assessment task (Orsmond *et al.*, 2004) and students need to be genuinely involved (e.g. by being granted opportunities to use all feedback received to revise and enhance their work, to assess their own competence, to share what they know and what they do not know, and by being clear about what they can do for themselves). Students also need careful steering by the teacher in terms of scaffolding: not only in its provision, but also in its progressive rationing as appropriate to the progress of the individual student. Inability to reduce and ultimately remove scaffolding leads to student dependence rather than independence in learning.

Preparation and housekeeping issues

We have already highlighted the greater potential of feedforward compared to feedback in supporting student and teacher learning. Feedforward activities should be more dominant in supporting student/trainee teacher development of learning and teaching within the classroom. For example, when a student teacher is planning a lesson with colleagues more time and resources should be spent asking '*what can one achieve?*' and less time on feedback after the lesson ('*what has not been done?*'), to enable better learning gains; this is not to deny the importance of feedback but to place greater emphasis on focusing on what can be achieved. If students are to be encouraged to take greater responsibility for their own learning, this needs to be explicitly facilitated. Reviewing educational, cognitive and educational psychology literature and examples of pedagogical interventions aimed at enhancing student involvement in assessment design, a number of initiatives have been identified as helpful, including:

- availability of a whole programme of study and associated links to resources for students prior to commencement of teaching, and clear demonstration of how all aspects relate to each other
- reducing duplication in terms of where information is posted
- clear signposting of what is important in meeting the requirements of assessment and the setting of specific 'warm-up' tasks prior to the lesson/session to enable students to engage more fully in lessons
- integrating discussions about the nature and purpose of assessment into each teaching session (e.g. showing students how to access resources, commenting on methods of assessment)
- discussions with students as to the purposes of feedback/what constitutes effective feedback, and why
- explaining the requirements and purposes of assessment at the start of a lesson
- unpacking students' assumptions and beliefs about effective learning
- ensuring a range of assessment modes, and ongoing preparation of/support for students to manage the differing requirements of these
- training in the use of appropriate tools to enable critical reflection
- appropriate use of peer and self-assessment opportunities
- appropriate use of technology to support learning

(see Nicol and MacFarlane Dick, 2006; James *et al.*, 2001–5; Scott *et al.*, 2013;Wiliam, 2011 for further information on these.)

Particular attention within the literature has been paid to the use of e-learning to support assessment practices and the use of peer learning opportunities that require further analysis.

APPROPRIATE USE OF TECHNOLOGY TO SUPPORT LEARNING

Much has been made of the potential of e-technologies to support assessment practice. A very useful review of this area is that of Gilbert *et al.*'s (2011) *Synthesis report of assessment and feedback with technology enhancement* (*Srafte*), which considered 124 studies in school and higher education contexts. The key issue identified by Gilbert *et al.* was that the success of e-assessment feedback interventions (e. g. automated feedback, online discussion boards and blogs to support learning, online assessment tasks, use of clickers within teaching sessions to ascertain how many students understood specific issues to enable modifications to the teaching context in real time) was more dependent on whether the use of technology led to improved teaching methods, rather than on the technology itself (i.e. it depended on the informed use of pedagogy). In their summary, Gilbert *et al.*, 2011 (pp. 54–55) highlighted that technology-enhanced assessment methods enabled: (i) the development of learning designs that would not otherwise have been possible, (ii) enhanced student retention, inclusion and performance, (iii) teams having a shared understanding of assessment, (iv) informed data analysis to facilitate further development of assessment practice, and (v) staff training needs to be attuned to the needs of students. Given the potential of e-learning technologies to support assessment practice, more resources should be allocated to supporting teacher learning of new technologies and identifying how these can best be used to support assessment and feedback along with critical evaluation of the effectiveness of such approaches. It is not about the provision of technology per se, it is about teacher competence in being able to use such technologies effectively informed by pedagogy; this is one fruitful area where students and teachers could effectively work together to enhance assessment design.

APPROPRIATE USE OF PEER LEARNING INITIATIVES

There have been a number of reviews of peer feedback (see Falchikov and Goldfinch, 2000; Topping, 1998; Van Zundert *et al.*, 2010) in which definitions of peer feedback have varied, as well as the nature of its impact on learning. For some, peer feedback is synonymous with peer assessment (students assessment of each other), while others highlight the formative nature of peer feedback, preferring the term '*peer engagement*' (Cowan and Creme, 2005) where the role of peer feedback is to build student collaboration, confidence and autonomy. We would define peer feedback as any activity in which students engage with each other to support the learning of self and peers through their giving of feedback, use of feedback, responses to feedback and critical evaluation of it both informally and formally; we see it essentially as a formative process.

Peer feedback can be seen as motivational and enabling student self-regulatory skills (Davies, 2006); others question its effectiveness (Strijbos and Sluijsmans, 2010). Evans (2013b) has noted the current excessive emphasis on collaborative learning activities at the expense of individual independent thinking in schools; the issue is the appropriateness of the assessment design (involving collaborative and individual work) to the requirements of the task and to the learning needs of the students. Some students benefit enormously from collaborative enquiry, but others do not (Fund, 2010). It is then a question of to what extent the students should be encouraged to engage in peer feedback. For students to engage meaningfully in peer feedback they need to be convinced of its value, both in relation to their own learning and to their capacity and capability to do it.

We do know that the design of peer feedback opportunities affects student learning outcomes. This, then, highlights a training issue (for teachers and students) (Evans, 2013b). A number of contextual experiences (previous learning; nature, timing and perceived authenticity of assessment; and individual difference variables: perceived agency; trust in self and others to provide good feedback; belief in own ability linked to self-esteem and self-worth) (Evans, 2013b) impact students' attitudes to peer assessment. The following factors are important in the consideration of peer assessment design

1 The academic ability of the feedback giver and recipient impacts on the nature and quality of feedback that can be given and acted upon (Van Zundert *et al.*, 2010).
2 The roles of assessor and assessee need to be made explicit so that students are clear about their respective roles (Gielen *et al.*, 2011).
3 The nature and type of feedback peers are asked to give depends on the knowledge, understanding and

skills sets of the students involved; being asked to give feedback outside one's area of expertise will undermine the quality and effectiveness of such feedback (Tseng and Tsai, 2010).

4 There is greater potential in giving feedback than in receiving it; it is what students do with feedback that is important (M. Kim, 2009).

5 Supporting students in learning to give feedback on their feedback helps to complete the feedback cycle so that students are in a position to act on feedback and to qualify points that they do not understand (Evans, 2014);

6 Developing an appropriate climate for feedback (Liu and Carless, 2006). Training students how to give feedback is important (Sluijsmans, Brand-Gruwel, and van Merriënboer, 2002), but training alone is not enough (Topping, 2010). Students need an understanding of assessment criteria, and of what constitutes good feedback, as well as an ability to reflect on their own learning as part of the giving and receiving of feedback as part of an ongoing iterative process. Understanding how to manage the emotions associated with receipt of feedback is fundamental in being able to act on feedback.

Clarifying what is good

For students to use their time productively, they need clarity about what constitutes good work and as part of this, teachers need to explain what good is and also examine with students the students' own existing schema about what they perceive to be good work, and develop effective approaches to learning within specific contexts. Students need to understand where they are now and where they need to get to in order to fully meet the requirements of assessment (Ramaprasad, 1983: Sadler, 1989). Providing clear and explicit guidance (e.g. on organization of resources, clarity about assessment criteria including using assessment criteria to mark own and others' work, exemplars of 'good' work) can open up opportunities for students to explore ideas at deeper levels as opposed to limiting sustainable assessment practice by encouraging criteria compliance and dependence (teaching to the test) (Torrance, 2007). The challenge for teachers remains one of preparing students for the immediate requirements of assessment and in supporting students to develop and value potential life-long learning skills beyond a specific assessment point as part of sustainable assessment.

Nature and design of feedback

The way in which feedback is given does matter. Hattie and Timperley (2007) identified four different types of feedback and argued that regardless of how they are employed, they vary in their effectiveness, with *self-feedback* being the least effective of the four in supporting learning gains. Their four feedback types comprise: *task feedback* – emphasizing information and activities with the purpose of clarifying and reinforcing aspects of the learning task, *process feedback* – focusing on what a student can do to proceed with a learning task, *self-regulation feedback* – focusing on metacognitive elements including how a student can monitor and evaluate the strategies he or she uses, and *self-feedback* – focusing on personal attributes, for example, how well the student has done. In reality, all types of feedback are interwoven and it is the craft of the teacher in knowing *and* the student in learning how to balance and use different types of feedback.

Questions for reflection

- We have used the PLSP to support the development of assessment practice (Evans and Waring, 2011a; 2011b; 2015). Using Table 9.1 as an example, complete Table 9.2 to review your own assessment practice and to identify your own priority areas.
- How are you supporting your students to manage their own feedback practices (seeking, receiving, and using)?
- How are you developing student self-assessment skills?

- What facilitators and barriers are there in the development of your own assessment practice?

Summary

While accepting that students have specific individual needs, there is evidence from the research literature of some core principles that should be applied in the giving of effective feedback to all students (Handley, Price, and Millar, 2008). Such principles include:

1 *Timeliness*: there needs to be sufficient time for a student to be able to use feedback to inform development of their work (Bloxham, 2008); organizationally imposed 'one size fits all' timelines may actually work in the provision of good feedback.
2 *Less may be more:* feedback should be focused on key issues to be addressed. Too much complexity may result in information overload and negative emotional regulation (Evans, 2014b).
3 *Early checks:* in supporting student learning transitions, early assessment is important to ensure students understand the requirements of assessment (Evans, 2015).
4 *Specific and generic feedback:* feedback should be appropriate to the requirements of the task (Gibbs and Simpson, 2004) and also enable feedforward (Boud, 2000).
5 *Realistic expectations:* students need to have sufficient knowledge of how to be able to use feedback effectively (Hattie and Timperley, 2007).
6 *Accessible to the learner* (Weaver, 2006): students need to receive feedback that is appropriate to their learning needs and level of understanding (Hattie and Timperley, 2007; Knight and Yorke, 2003).
7 *Feedback-seeking training* for students: this maximizes feedback opportunities (Evans, 2014).
8 *Encouragement of student responsibility in the feedback process (giving, receiving, and acting on feedback)*: students need sufficient incubation time and support to be able to process feedback and to be able to engage in equitable dialogue (written and oral) with their teacher and peers on the feedback they have received to clarify meanings, expectations, misconceptions, and future actions (Rust *et al.*, 2005). Students should be involved in developing their own feedback – in identifying actions and strategies with support from teachers as part of co-regulation (Burke, 2009) and self-regulation (Hattie and Timperley, 2007).

For assessment design to facilitate and not hinder student learning greater emphasis should be placed on feedforward compared to feedback activities. There is general agreement that:

- *feedback should be a fully integrated element of assessment* rather than perceived as a series of isolated events
- *multiple sources of feedback* should be encouraged, with the teacher not necessarily being the dominant source of feedback, but more the facilitator of student access to, and navigation and use of networks
- feedback is best viewed as *co-constructed*, involving dialogue between students and teachers
- learning can be facilitated through carefully mediated peer feedback mechanisms that allow the *individual to take control of the feedback they seek and use*
- greater emphasis should be placed on developing students' willingness to engage in and with feedback; students' *emotional regulation of feedback*, feedback relationships and feedback-seeking skills are important dimensions of this (see Boud and Molloy, 2013; Evans, 2013b; Evans, 2014; Yang and Carless, 2013 for further discussion of these areas).

Table 9.2 Enhancing feed-forward/-back

Theme	Things to think about	How could you develop this?	Considerations e.g. training issues / cost of resources / relative ease to implement etc.

1	*Assessment design*			
1(a)	Constructive alignment in relation to match between objectives / teaching approaches and nature of assessment (Biggs, 1999, 2014)	• How does the *pattern and nature* of assessment enable you to assess 'deep' understanding of core concepts and practices in your subject? • Do you *over-assess*?		
1(b)	Progressive – does formative feed into summative (Boud and Associates, 2010)?	• Is assessment *suitably spaced* to enable students to use feedback and does each element *link* to the next task coherently?		
1(c)	Relevance / authenticity / fairness	• Are the tasks relevant / *appropriate to future practice*? • What is the student perception of this – how do you measure this?		
1(d)	Appropriateness in relation to student level	• Do students have *equal access* to the tasks? • Is there an appropriate *range* of assessment? • Is there *choice* in assessment? • Is *guidance* given to students on assessment choices?		
1(e)	Can the student see the value?	• How is the *nature and value* of assessment covered during induction and subsequently?		
1(f)	Is it clear to the student how the different elements of assessment fit together?	• How is organization of assessment and clarification of this managed through the virtual learning environment, documentation, and in the teaching? • How do you know students are clear about how all *elements of assessment fit together*?		
Theme		*Things to think about*	*How could you develop this?*	*Considerations e.g. training issues / cost of resources / relative ease to implement etc.*
2	*Role of the student*			
2(a)	Exploring previous experiences of feedback	• (How) do you get to know students' *previous experiences* of feedback? • How and when do you explore *students' beliefs* about the value of assessment and feedback?		
2(b)	Supporting self-regulation through design of tools and environments to enable students to self and peer assess	• How are you working with students to develop their *self-regulation skills*? (See 3(a)		
2(c)	Training students and teachers in how to give and make use of feedback opportunities	• What training is put in place to support students in *giving feed-back/-forward*? • What elements of feed-back/-forward should students be involved in? • What elements of feed-back/-forward do students give to each other? • What strategies are being implemented to get students to *feedback on the feedback* they have received from each other?		
2(d)	Clarification of student role in the process and sources of feedback available	• How is the student role in feed-back/-forward clarified during induction and subsequently? • How are students instructed to be more *active agents* in the feed-back/-forward process? e.g. Are they encouraged to ask questions about their feedback? Are they aware that they are receiving feedback when they do? • How are they being supported to develop feedback-seeking and feedback-giving skills?		
2(e)	Ownership/agency/autonomy	• To what extent are students involved in		

		developing assessment criteria? • To what extent can students *choose* their mode of assessment? • What *guidance* are students given in relation to the *choices* they make? • If student self-regulation is seen as essential, to what extent does *summative assessment* allocate marks for students to explain how they have met the criteria and what areas they still need to develop in their work?		
Theme		*Things to think about*	*How could you develop this?*	*Considerations e.g. training issues / cost of resources / relative ease to implement etc.*
3	*Preparation and housekeeping*			
3(a)	Organization of resources (handbooks/VLE)	• How are resources organized to ensure *maximum student access*?		
3(b)	Availability of all resources prior to commencement of programme	• Are all resources, including *exemplars of good work*, in the virtual learning environment from the beginning of the programme?		
3(c)	Signposting of what is important	• How is the relative importance of tasks clarified with students?		
3(d)	Integrating assessment into each teaching session	• How much *time* is given *in each teaching session* to clarifying assessment requirements? How is this done?		
3(e)	Advance preparation by students so they warmed up to idea(s)	• What *early opportunities* are there for students to undertake formative assessment early on in the programme to establish needs quickly? How can this be done effectively? What are students expected to prepare for each session?		
3(f)	Lecturers need to have shared understandings of purposes of feedback/what constitutes feedback	• What opportunities are there for developing *shared understandings of requirements of assessment*?		
Theme		*Things to think about*	*How could you develop this?*	*Considerations e.g. training issues / cost of resources / relative ease to implement etc.*
4	*Clarifying what is good*			
4(a)	Students need to understand where they are now and where they need to get to	• What *tools* are you using to support student development of self-assessment skills, e.g. self-checking lists where they break criteria down to examine their own work; presentations to peers; self-reflection exercises etc?		
4(b)	Access to the rules of the game	• How does *induction* give students a clear idea of the standards they need to achieve and how elements of assessment fit together? • What resources are provided to clarify requirements?		
4(c)	Explicit direction to resources / forms of support	• How and where are different *sources of support* (peer, self, internet, journals, organizations, writing guidelines, etc.) clarified with students? • Are formalized peer support groups set up to support learning?		
4(d)	Explicit examples of good work	• Where can students access examples of good work?		

		• What opportunities do students have to *explore each other's contributions* and how is this managed?		
4(e)	Existing schema of students need to be addressed – and early on – as to what constitutes good writing etc.	• How is *student writing* assessed from the outset? • How do you *clarify the conventions and requirements* of your discipline? How do you assess students' different starting points? • How can students support each other?		
4(f)	Clarifying assessment criteria – students using criteria	• When do students have opportunities to *mark exemplars using criteria*? What support is provided to enable this and to discuss outcomes?		
4(g)	Ownership / agency / autonomy	• Are students involved in developing their *own rubrics* in order to self-assess their own work? • Do students get the opportunity to d*esign and implement assessment*? • To what extent are students involved in *developing assessment criteria*? • To what extent can students *choose* their *mode of assessment*? • What guidance are students given in relation to the choices that they make? • If student *self-regulation* is seen to be essential, to what extent does summative assessment allocate marks for students to explain how they have met the criteria and what areas they still need to develop in their work?		

Theme		*Things to think about*	*How could you develop this?*	*Considerations e.g. training issues / cost of resources / relative ease to implement etc.*
5	*Nature and design of feedback*			
5(a)	Specific *vs* generic – can it be carried forward – timing – issue of transfer and adaptation	• How does feedback enable the student to carry it forward to other assessments? • How do you ensure the balance between *generic and specific subject feedback*?		
5(b)	Most appropriate form of delivery	• What *type of feedback* is most effectively given at the group level *vs* the individual level? Oral *vs* written, electronic, via peers, via tutor, via self? • How can *summative feedback support* further work within and beyond your subject? How is ICT being used to support the feedback process?		

Theme		*Things to think about*	*How could you develop this?*	*Considerations e.g. training issues / cost of resources / relative ease to implement etc.*
5(c)	Accessibility: clarifying student understanding of feedback	• What activities are devised to ensure students have understood the feedback they have received? • What have you implemented to ensure that students are *not passive receivers* of feedback?		
5(d)	Focus on higher-level outcomes, e.g. quality of argument *vs* SPAG	• How are you ensuring that *feedback focuses on critique / conceptual understandings / applications of ideas /innovation*, etc?		
5(e)	Signposted / focused	• How is *feedback focused*: how is it signposted and prioritized?		
5(f)	Realistic in expectations	• What *resources/support* is/are available and		

	(learner needs sufficient knowledge of how to be able to use feedback effectively	accessible to students to develop better understanding in order to engage with feedback? • What strategies can be taught to students so they are more able to *engage with feedback* as part of their responsibility within the learning process? • How is the *student role in feedback* clearly outlined during induction?
5(g)	Involving students in developing own feedback as part of summative assessment?	• How can s*tudent self-assessment be incorporated into summative assessment*?

Key readings

Black, P., and Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education, 5*, 7–74.
This work highlighted the importance of formative assessment in supporting students' learning in the classroom and particularly the role of feedback; the value of active involvement of students in their learning, and the need for students to be able to self-assess themselves in order to improve. The emphasis on student self-regulation in assessment and feedback has been underemphasized in policy and in translation within school contexts (see also Wiliam, 2011)

Boud, D., and Molloy, E. (2012). *Feedback in higher and professional education. Understanding it and doing it well*. London and New York: Routledge.
This book promotes a learner-centred sustainable approach to assessment and feedback that sees learners more actively engaged in seeking, generating and using feedback. It looks at latest thinking on feedback and highlights key principles and implementation issues from different disciplinary and cultural perspectives. See also Merry et al. (2013) work on reconceptualizing feedback.

Evans, C. (2013b). Making sense of assessment feedback in higher education. *Review of Educational Research, 83 (1), 70–120.*
This article provides a synthesis of assessment and feedback practice within higher education; the twelve principles of effective assessment feedback design are applicable to school, higher education and workplace contexts. The 'Feedback Landscape' conceptual framework can be used to analyse the nature and quality of feedback interactions between students and teachers including other resources (peers, internet, family, societies etc.) within and beyond the immediate learning environments). The article can be downloaded free at http://rer.sagepub.com/cgi/reprint/83/1/70?ijkey=x/CimNd6vjZWI&keytype=ref&siteid=sprer (accessed 10 October 2013).

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Chapter 10

Making sense of critical reflection

Overview

Critical reflection is seen as the cornerstone of teachers' professional practice; however, there is much debate as to what critical reflection is, how it is enacted, and what it achieves. In this chapter we will define what critical reflection is, and explore the use of models and tools in the teaching of critical reflection. Key principles and issues involved in supporting the critical reflection of teachers and learners using the Personal Learning Styles Pedagogy framework will be highlighted as part of this.

Introducing critical reflection

There is a vast body of literature on critical reflection, from many different disciplinary and theoretical perspectives (Brookfield, 1987, 1995; Ghaye and Lillyman, 2000; Johns, 2002).

Critical reflection is an important element in how we learn from experience, and it has the potential to be emancipatory. It can free learners from the implicit assumptions constraining thought and action in the everyday world and enable them to act on the forces creating inequality in professional practice and in the world (Stein, 2000, p. 2). It can help us 'make sense of the uncertainty in our workplaces' and offer us the 'courage to work competently and ethically at the edge of order and chaos' (Ghaye, 2000, p. 7). Winch *et al.* (2013) have argued that it is the capacity for critical reflection which distinguishes the best teachers from others. It is often seen as the bedrock of professional identity (Finlay, 2008). Supporting the importance of critical reflection in teaching, Larrivee (2000, p. 293) has argued that 'Unless teachers develop the practice of critical reflection, they stay trapped in unexamined judgments, interpretations, assumptions, and expectations'.

However, whether critical reflection leads to enhanced understanding or functions to reinforce or collude with existing teacher beliefs or practices is questionable (Brockbank and McGill, 1998; Stein, 2000). There is a lack of empirical research demonstrating the evidence base supporting reflective practice (J. Hargreaves, 2004). Given differences in interpretation as to what critical reflection involves, the variety of approaches and tools, and a lack of longitudinal studies examining ongoing applications of critical reflection to practice, it is very difficult to establish the effectiveness of critical reflection and critically reflective teaching. Little is known about the difficulties, practicalities and methods of critical reflection (E. Smith, 2011, p. 212). The potential uncomfortable and risky nature of critical reflection and the power dynamics associated with it have been highlighted by Brookfield (1995). Yet at the same time the potential of being able to think critically can be emancipatory for the learner. From an educational perspective, while critical reflection can be taught, a key issue remains the ability of individuals to apply what they have learnt within and across contexts (Stein, 2000).