

Sustainable assessment: rethinking assessment for the learning society

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Abstract

Assessment practices in higher education institutions tend not to equip students well for the processes of effective learning in a learning society. The purposes of assessment should be extended to include the preparation of students for sustainable assessment. Sustainable assessment encompasses the abilities required to undertake activities that necessarily accompany learning throughout life in formal and informal settings. Characteristics of effective formative assessment identified by recent research are used to illustrate features of sustainable assessment. Acts of assessment need both to meet the specific and immediate goals of a course as well as establishing a basis for students to undertake their own assessment activities in the future. To draw attention to the importance of this, the idea that assessment always has to do double duty is introduced.

Introduction

Assessment involves identifying appropriate standards and criteria and the making of judgements about quality. This is as necessary to lifelong learning as it is to any formal educational experience, although it may not be represented in formal ways outside the environment of certification. Assessment therefore needs to be seen as an indispensable aspect of lifelong learning. This means that it has to move from the exclusive domain of assessors into the hands of learners. A focus on methods and techniques needs to be replaced by a new conception of sustainable assessment required for lifelong learning. Sustainable assessment encompasses the knowledge, skills and predispositions required to support lifelong learning activities. If assessment tasks within courses at any level act to undermine lifelong learning, then they cannot be regarded as making a contribution to sustainable assessment.

The term sustainable assessment is used here because of its resonances with sustainable development. Sustainable development has been used in many different ways—one common definition is ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (Brundtland 1987). Sustainable assessment can be defined as assessment that meets the needs of the present and prepares students to meet their own future learning needs.

While this paper acknowledges the need for assessment for certification purposes, it suggests that in order for students to become effective lifelong learners, they need also to be prepared to undertake assessment of the tasks they face throughout their lives. They should be able to do this in ways which identify whether they have met whatever standards are appropriate for the task in hand and seek forms of feedback from their environment (from peers, other practitioners, from written and other sources) to enable them to undertake subsequent learning more effectively. They should be equipped to do this in a wide range of settings and in a variety of circumstances. A corollary of this is that they will not be dependent on teachers or other formal sources of advice, but they will be able to work with others and deploy available expertise in a reciprocal fashion. Being able to effectively assess their own learning is not a state they will achieve at a particular point in time, but one which will need to be continually reworked throughout their lives as new and anticipated challenges present themselves. Students thus equipped will be able to contribute to their own learning and that of others. As part of being lifelong learners they will be effective lifelong assessors.

Following further discussion of the idea of a learning society and what that implies, the paper examines some of the profound shifts in the conception and practice of

assessment we are now witnessing. These shifts are all the more significant as they are not always visible at the level of the individual assessment act.

The paper then suggests that a renewed focus needs to be placed on the role of *formative* assessment. This is needed in order to focus learners' attention on the processes of assessment and to permit them to learn how to make these processes their own, rather than ones they are subject to. Formative assessment has been neglected as *summative* assessment has dominated thinking in educational institutions and in public policy debates and has taken up too high a proportion of staff time, energy and resources at the expense of preparing effective learners. It is proposed that we need to introduce high quality formative assessment practices because it is engagement with these practices which provides a secure foundation for lifelong learning and contributes directly to a learning society. Lifelong assessment is a necessary feature of lifelong learning for a learning society. It is only when we can view it in formative terms that we can avoid assessment becoming a form of lifelong incarceration in which learners continually give over to others the power to judge and limit their actions.

What kind of learning society should be assumed?

Although assessment as it is presently practised may not contribute as much as it might towards the development of lifelong learners, it is not so obvious *how* it might relate to the idea of the learning society. It depends very much on what view of a learning society is adopted. The notion of learning society widespread in current debate is problematic and elusive, but it is one we have to work within as it is a part of the central discourse of our times. We need to develop a view about what a learning society means for us, singularly and collectively, and we need to explore the implications this has for lifelong assessment.

The UK National Committee of Inquiry into Higher Education (Dearing Report) makes much of the learning society. It uses that term in its title: *Higher Education in the Learning Society*. To quote:

“Over the next 20 years, the United Kingdom must create a society committed to learning throughout life. That commitment will be required from individuals, the state, employers and providers of education and training. Education is life enriching and desirable in its own right. It is fundamental to the achievement of an improved quality of life in the UK.” (Dearing 1997: 8)

Notwithstanding the simple vision of Dearing, the idea of the learning society is strongly contested. Any attempt to list the main characteristics of it, in Coffield's words “quickly becomes a futile task, because each commentator offers a different set of qualities thought essential to such a society” (Coffield 1997: 450). He goes on to add: ‘to educational managers, talk of a learning society acts as an emollient balm or ‘magic cream’ to be rubbed on all the cuts imposed on them’. For Hughes and Tight (1995, quoted in Coffield 1997: 449), the learning society had become not only ‘an ideological concept serving ideological purposes’, but also a harmful, modern-day myth, whose function is ‘to provide a convenient and palatable rationale and packaging for the current and future policies of different power groups within society’ (1995: 302).

Of course, this does not stop each one of us having a view of the direction which society will take. It also does not stop us taking a notion strongly supported by a wide range of interest groups in society and investing it with educational values to which we are committed. In the way in which on a much smaller scale, the notion of ‘enterprise’ was transformed in its application to higher education, so too will the concept of a learning society. We face a trap in working with this concept if we simply use it for justification for our present practices. Such a stance is not sustainable. Whatever conception of the learning society we have, it is hard to imagine that we will be able to pursue it without

considerable change not only to our teaching, learning and assessment practices, but also to our view of what is higher education and the world beyond it.

One of the few writers to discuss assessment and the learning society is Richard Edwards (1997). He points to a number of recent changes to assessment in relation to the social-political context. These include:

- A shift from inputs to outputs in considerations of education. There has been a move from a concern with curriculum to learning outcomes and assessment. This has been striking in vocational education and training, but is increasingly so in higher education.
- Improving access through recognition of prior learning. Assessment has become more powerful through the ways in which it has reached into the sphere of informal and experiential learning and exerts new and subtler forms of control through the commodification of experience that occurs in the accreditation of prior learning (APEL).

Edwards (1997: 175) argues that we need to move beyond a notion of learning society as ‘an educated society’ and as ‘a learning market’ to a notion of ‘learning networks’. In learning networks individuals participate in society ‘in a range of neo-tribal networks [local, national, regional, global] with which they identify and through which that identity is constituted’. In this view of a learning society ‘learners adopt a learning approach to life, drawing on a wide range of resources to enable them to support their lifestyle practices’ (p. 182).

‘The normative goals of a liberal democratic society — an educated society — and an economically competitive society — a learning market — are displaced by a conception of participation in learning as an activity in and through which individuals and groups pursue their heterogeneous goals.’ (p. 184)

To be an active agent in learning networks and to adopt a ‘learning approach to life’, members of society need to focus as much on the judgements they make about learning as on learning tasks themselves. These judgements constitute the full range of assessment and evaluation. Our societies need to build the capacity in all members and institutions to undertake such judgements, individually and collectively. Part of this capacity-building is the focus of the current paper — a rethinking of how students are equipped for it as part of their higher education experience.

My own view of how we should equip students for a learning society is that learners today will continue to be learners throughout their lives more than ever before: in work, in families and in communities. Old structures are fragmenting, the certainties for the middle and skilled working class have disappeared, careers as such are shortening, employment is becoming increasingly contingent, globalisation is unleashing unfamiliar forces upon us. The risk society is here (Beck 1992). Barnett (1999) writes of being confronted with a new world of supercomplexity and the need for work to become learning and learning to become work. He points to the need for an engaged responsiveness which both attempts to anticipate and respond to the unanticipated.

The theme of preparing students for an increasingly unknowable future is also considered by Bowden and Marton (1998) in *The University of Learning*. Drawing on research examining how learners view the objects of their study in qualitatively different ways (Marton and Booth 1997), Bowden and Marton demonstrate how courses need to focus on the critical ability to discern variation in knowledge so that students can act more effectively in new situations. They contrast this approach to teaching which has a reproductive view of knowledge in which students learn to see the world in the ways known by their teachers.

The only things we can be sure about are change and connectedness with others in complex society. Those who are skilled and flexible learners will flourish in these

conditions; others will languish. Each will have obligations towards others. As educators it is our responsibility to equip all learners as best we can, for formal and informal learning. This requires us to go beyond immediate course-related goals and view learning and assessment in wider terms. We will need to prepare students not just for what the course itself sets as its outcomes, but to operate in a society whose form we can but glimpse. We need to engage with the question of what constitutes sustainable assessment and how it can be promoted.

One of the ways we can begin to do this is to examine that aspect of assessment that is directly linked with learning, that is, area of formative assessment. There has been a renewed interest in this in recent years and research on formative assessment provides important pointers for sustainable assessment practice.

A new focus on formative assessment

Assessment has two main purposes: certification (summative assessment) and aiding learning (formative assessment). These are inextricably woven together and, given the resource constraints of most educational institutions, it is probably impossible to separate them in practice. Both purposes of assessment need to be judged in terms of their effects on learning and learners, as there is no point in having a reliable summative assessment system if it inhibits the very learning which it seeks to certify. Assessment must be judged in terms of its consequences (Messick 1989).

Existing assessment practices are perhaps the greatest influence inhibiting moves towards a learning society. As presently operating, summative assessment acts as a device to inhibit many features of a learning society. It provides a mechanism of control exercised by those who are guardians of particular kinds of knowledge—teachers, educational institutions, professional bodies and occupational standards organisations—over those who are controlled by assessment—students, novices and junior employees. It too easily locates responsibility for making judgments in the hands of others and undermines learners' ability to be effective through simultaneously disguising the criteria and standards of performance being upheld, while convincing them that their interests are being served by increasing sophisticated assessment schemes.

Discussion of formative assessment is certainly not new. However, it has made relatively little contribution to current assessment thinking. Providing feedback to students to assist in their learning is bread and butter to teaching and learning, but it can become so commonplace that it gets ignored and becomes under-conceptualised. It has been overshadowed by a focus on summative assessment. As societies we have become obsessed with certification and grading and public measures of performance and accountability. Whether operating within a norm-referenced or a new standards-based framework, concern about labelling has been paramount. Accountability and portrayal of accomplishments is clearly important, but in the process of giving attention to certification we have pushed into the background a concern for learning and the necessary assessment processes which need to accompany it. Ironically, we have given insufficient attention to those aspects of assessment that contribute most to students' ability to learn for themselves and thus contribute to a learning society. We must place a focus on how students learn and the role assessment can play in that. While assessment can drive learning, it does so in complex ways that must be disentangled.

Both formative and summative assessment influence learning. Summative assessment does so by providing the de facto agenda for learning. It provides an authoritative statement of 'what counts' and directs student attention to those matters. It tells us what to learn. Unfortunately, it does not communicate directly or unambiguously—it uses a form of code that only the most effective learners can decode. The influence of formative assessment is subtler, if no less profound. It provides the fine tuning mechanism for what and how we learn. Formative assessment guides us in how to learn

what we wish to learn and it tells us how well we are doing in progress to get there. Ironically, *summative* assessment drives out learning at the same time it seeks to measure it. It does this by taking responsibility for judgments about learning away from the only person who can learn (the student) and placing it unilaterally in the hands of others. It gives the message that assessment is not an act of the learner, but an act performed on the learner. How do we replace this misleading image with one that locates assessment in the hands of learners, while acknowledging the legitimate role of certification by others? While it is neither possible nor desirable to remove the summative judgements of others, a significant shift of balance is required in order to equip students to sustain themselves as lifelong assessors. To identify what might be possible for sustainable assessment, we have first to look carefully at what *formative* assessment requires.

How does research on formative assessment contribute to an agenda for sustainable assessment?

The considerable literature on formative assessment has been investigated in a major review by Black and Wiliam (1998a, b). This provides an important starting point for an examination of what is needed for sustainable assessment. In this section some key findings from Black and Wiliam's review are listed along with my own commentary on each. These points will later be used in constructing a framework for sustainable assessment.

A criterion- or standards-based framework is necessary.

Norm-referencing places major barriers in the way of improving the quality of learning as it focuses on discrimination between different students, not on discrimination between different levels of learning achievement. Without a standards-based framework, learners cannot know whether their achievements are a result of meeting an acceptable standard or simply doing better than other students in the same cohort. There are clear signs that universities are moving towards adoption of assessment policies that promote standards-based approaches and prohibit norm-referenced assessment. Examples of Australian universities which have established policies of this kind are Queensland, Sydney and my own. Getting staff to conform to these policies is more problematic as many staff are embedded in disciplinary cultures which do not hold the assumption that learning is for all.

A belief that all students can succeed is needed.

Unless staff have expectations that students will succeed, it is difficult for students to believe this themselves. Students must always be treated as if they will succeed. This involves a respect for all students, not putting them down or implying that they might be anything but successful in one's course. If this is not a valid assumption then the intake or the course must change. It is ethically irresponsible to admit students and assume they will not succeed because by so doing creates a climate not conducive to learning.

Learners' beliefs about their own capacity as learners can affect achievement.

Alongside teachers' beliefs that students can succeed must be placed students' beliefs in their abilities. These are of course substantially influenced by teachers' beliefs. Assessment practices must contribute towards the building of students' confidence in their ability to learn, not undermine it.

The separation of feedback from grading should be considered.

Studies discussed by Black and Wiliam (1998b) suggest that comments plus grades can lead to lesser learning than comments without grades. Grades or marks are a form of code familiar to teachers, but which acts as a barrier to student understanding. Rather than have teachers encode their comments into a symbol whose meaning is not shared only to have students attempt to decode this symbol to gain feedback, better to minimise the translations required between comment and reception. 'Say what you mean' is a characteristic of good feedback. Grades always say more or less. More in the sense that

they place a weight of classification on a piece of work which binds the learner to the classification, less in the sense that grades cannot point effectively to the specifics of what can be undertaken for improvement.

The focus of assessment should be on learning rather than performance.

An emphasis on students' understanding (learning how to solve problems, mastery) rather than performance goals (merely solving problems) is needed. Black and Wiliam (1998b) point out that 'feedback which draws attention away from the task and towards self-esteem can have a negative effect on attitudes and performance' (p. 23).

Assessment activities are too often designed in such a way that students concentrate on the test itself and their role in 'beating' it. This is unhelpful to their learning as it is the characteristics of their performance which is foregrounded not what is necessary to allow the challenge to be met. It is necessary for both teachers and students to focus on the *task*, not on the *self*. Decentring the ego appears to be a prerequisite for effective assessment.

The development of self-assessment is vital.

Formative assessment by others can only have an impact on learning when it influences a student's own self-assessment (Boud 1995b). Research shows that frequent self-assessment is highly efficacious in enhancing student achievement.

Reflective assessment with peers should be encouraged.

While self and peer assessment by and between students is important, many forms of peer assessment are ineffective. These are processes in which peers are used as surrogate assessors to generate grades. That is, the focus is really on summative assessment. The creation of a climate in a course in which the giving and receiving of feedback is a normal part of teaching and learning processes leads to worthwhile peer learning. Having peers rate each other on relatively uninformative scales to produce marks which are used primarily for classificatory purposes tends to disrupt learning together. A variety of assessments are however compatible with peers learning from each other (Boud, Cohen and Sampson 1999).

For assessment to be formative, it has to be used.

The only way to tell if learning results from feedback is for students to make some kind of response to complete the feedback loop (Sadler 1989). This is one of the most oft forgotten aspects of formative assessment. Unless students are able to use feedback to produce improved work, through for example redoing the same assignment, neither they nor those giving feedback will know that it has been effective. This point has serious implications for higher education courses that are always moving on to tackle new areas of learning without ascertaining if those that have gone before have been adequately understood. Of course, it is unrealistic to expect students to redo all their work in the light of feedback. However, if as is generally the case at present, they are given few if any chances to this, then the impact of the course on learning is minimised. The challenge is to find a balance between providing a wide range of new learning opportunities for students and enabling them to complete the feedback loop enough times for them to gain the confidence that their achievements are secure and can really demonstrate the desired outcomes.

Formative assessment requires changing teaching and learning practices.

The changes required to implement effective formative assessment are not about the addition of a few tests; they involve redesigning teaching and learning. Changing feedback is at the heart of pedagogy—it is never marginal. Implementation of formative assessment practices calls for deep changes in teachers' perceptions of their own role in relation to students and in their classroom practice (Black and Wiliam 1998b: 20). For example, a key aspect of assessment is assisting students to recognise cues from the context of study which indicate what is good quality work and helping them develop criteria which enable them to distinguish good from not so good task performance. That is, helping students recognise external clues they can use to give feedback to themselves.

‘... better results were secured by giving process goals rather than product goals, and both showed that where the feedback on process goals was supplemented to include information about students’ progress towards the overall aim of the learning, both the students’ learning performance and their beliefs about their own performance capacities (self-efficacy), were at the highest level. (p. 23)

Further, Ames (1992) recommends that feedback should be private, must be linked to opportunities for improvement, and should encourage the view that mistakes are a part of learning. (Black and Wiliam 1998b: 24).

If we are to equip students for a learning society, we must not only provide suitable forms of formative assessment as part of any learning enterprise, but we must also find ways of embedding formative assessment thinking into all acts of learning. We need to do this so that learners can as far as possible undertake their own formative assessment processes using whatever resources they can identify—in most learning throughout life this is all there is. It is impossible to overestimate the importance of this point. It is rare to find outside an educational institution, ready-made formative assessment processes available. The learner has normally to construct them for themselves *in situ* using colleagues, peers and friends and drawing on technical and informational sources that are found in workplaces or society more generally.

Formative assessment within educational institutions must equip students to be self-initiating seekers and users of formative assessment for their ongoing learning tasks throughout their lifetime. This means that not only must we incorporate good formative assessment processes in our courses, but we must find ways of enabling students to develop their own skills in putting together schemes of formative assessment. Such a focus on meta-assessment is relatively new. Some of the forays into the area of self-assessment which have been made are relevant to this task, but even these need to be reconceptualised to put them more effectively at the service of learners equipping themselves to the demands of complex practice. Many present examples of self-assessment are not successful in doing this (Boud 1995b). We need to see the teaching, learning and assessment practices of courses as part of the development of learners’ lifelong learning how to learn skills no matter what other requirement they have to satisfy. These learning-how-to-learn skills require a sophisticated appreciation of self assessment and how to build a context in which learning can not only be undertaken, but achievements assessed and judgements made about competency. All this needs to take place to prepare students for contexts not predictable by those who design higher education courses! New thinking is therefore required to build assessment which sustains learning. That this is a substantial challenge is evidenced by Black and Wiliam’s (1998b) observation that one of the outstanding features of their review was ‘that formative assessment is not well understood by teachers and is weak in practice’ (p. 18).

There is a large agenda to pursue and it is not possible to do more than point to one facet of it here. It requires a revolution in assessment thinking. As we are all products of pre-revolutionary times, we should not expect to find it easy or the path from where we are now to a new resolution, a direct one. We face the challenge of discontinuity, of trying to implement strategies which might appear to be contradictory. One of these is to identify ways of assessment doing double duty.

Assessment always has to do double duty

One of the traps in arguing for a shift in assessment practice is to propose an unrealistic ideal that can never be attained. An assessment act is never only what it appears or what we think it to be. It is always part of a broader discourse and has wider significance beyond the immediate context. We need ways of reminding ourselves about this so that we do not pretend that assessment practices only perform the immediate function of those who design assessment tasks—of testing the particular learning outcomes of a

unit of study, for example. It is only by taking some of these wider educational purposes discussed earlier into account at the design stage that we can equip students for lifelong learning and lifelong self-assessment. To help reinforce the importance of having a dual requirement for assessment, the notion of assessment always doing double duty is introduced.

What does the phrase, assessment doing double duty, mean? As well as the immediate ostensible purpose of an assessment activity, we must be mindful of the other functions it is fulfilling, often unwittingly. Assessment always performs functions other than the ones teachers and examiners normally think about and take account of. It is always about more than judging the achievement of learning outcomes for a given module or course. It is an act of communication about what we value. It transmits not only our views about what is important for our subject, but is an act of cultural communication transmitting what the collective 'we' intends. It does this without our conscious connivance. As members of a discipline, a profession or an educational institution we follow the norms of practice with which we are familiar. When rank ordering was the cultural norm, we engaged in rank ordering, when testing of learning objectives became accepted, that too is what we did. Today, assessment is explicitly about the portrayal of learning outcomes and we struggle to amend our assessment practices to that end.

Some of the ways in which assessment activities have to do double duty are:

- They have to encompass formative assessment for learning and summative for certification
- They have to have a focus on the immediate task and on implications for equipping students for lifelong learning in an unknown future
- And they have to attend to both the learning process and the substantive content domain.

Every act of assessment we devise or have a role in implementing has more than one purpose. If we do not pay attention to these multiple purposes we are in danger of inadvertently sabotaging one or more of them.

Returning to the earlier discussion of the learning society, we can see that the development of skilled and flexible learners who can move beyond the boundaries of what their course prepares them for, focuses attention not just on learning-how-to-learn, but on the subset of this which is often neglected: learning-how-to-assess. Students must be effective self-assessors; to be anything less is to be dangerously ill prepared to cope with change. Sustainable assessment must do double duty in providing the basic resources for students in their journey through the learning society in addition to whatever else it might do. Only by focusing directly on this goal — which sits alongside all others — can we hope to assist students in meeting it.

What basic resources are needed for sustainable assessment?

If we accept that assessment needs to do double duty, we need to examine what can be incorporated into assessment practice to build sustainability? The key features of formative assessment discussed earlier provides a starting point. The following items identify features that assessment tasks should promote if they are to be regarded as part of sustainable assessment:

Confidence that new learning tasks can be mastered.

Assessment activities should leave students better equipped to tackle their next challenge, or minimally, no worse off than they would otherwise be. Part of being equipped for the next task is having sufficient confidence that it can be approached with some chance of success. Without this students can become learning averse and seek to avoid tasks similar to those with which they have had an unsuccessful encounter. This

does not imply that assessment tasks should be so easy that everyone will master them, merely that students are not so discouraged that they give up trying.

Exploration of criteria and standards which apply to any given learning task.

A necessary part of taking responsibility for one's own assessment is that ability to identify what standards should appropriately apply. Unless the expectation is set that raising questions about appropriate standards is a normal part of approaching any learning task, this is unlikely to be sufficiently developed. Standards and criteria may occasionally be explicit, but mostly they will have to be inferred from the performance of others, from cues and clues from the context and from investigation of information sources and reports from other more experienced learners. These are fundamental tasks of sustainable assessment.

Active engagement with learning tasks with a view to testing understanding and application of criteria and standards.

Consideration of standards and criteria is not enough in itself, unless they are applied to the learner's own work and feedback sought on the appropriateness of the application, then learners cannot be confident that they are able to use them to improve their own learning. Such a focus on the task and what is needed to complete it to the required standard should be contrasted with a focus on the self ('how will I be seen?') or on grading ('how can I get good marks?'). This is not to imply that success on the learning task might not lead to positive impressions by others or good grades, but that evidence from formative assessment research suggests that engagement with the task is likely more readily to lead to learning.

Development of devices for self-monitoring and judging progression towards goals.

The next item for learners to consider after exploration of standards and engagement with the task is how can they tell if they are making progress in the direction desired. This involves the use and development of a range of strategies and devices deployed in the process of learning. These include everything from the setting of intermediate goals and checking progress at regular intervals, to the keeping of learning journals, to more sophisticated meta-cognitive devices. Not only is it necessary to know what are appropriate standards and criteria, it is necessary to be able to detect the extent to which the work one has produced meets them.

Practice in discernment to identify critical aspects of problems and issues.

While demonstration of critical thinking is a well established criterion for assessment, unless it is more specific in its application, it will remain mere rhetoric. Bowden and Marton (1998) argue that it is necessary for students to be exposed to certain kinds of questions in assessment tasks so that they may be able to develop the abilities to 'discern and handle simultaneously the relevant aspects of various situations' (p. 167). These questions 'have to be open, 'naked' (ie non-technical) and novel to students' (p.175). In Bowden and Marton's conception of assessment, the aim is for students to be engaged in discerning pertinent aspects of problems or issues and finding ways to simultaneously handle them. To do this, students need, in their view, to draw upon both disciplinary and professional knowledge. In this way students can be assessed in ways which address their capacity to handle situations in the future that they have not previously dealt with.

Access to learning peers and others with expertise to reflect on challenges and gain support for renewed efforts.

The more complex learning is, the less likely that it can be accomplished in isolation from others. We need others for many purposes: To help us check our understanding, see alternative ways of interpreting a task or situation, act as a sounding board for our ideas, provide support when we are feeling low, to identify new sources of information, and to provide other views and judgements. Even in educational institutions, there are never enough teachers around when needed to provide this range of expertise and they are not necessarily the most useful persons to provide it.

Use of feedback to influence new ways of engaging with the learning task.

While there are limits to the number of occasions on which students are able to complete the feedback loop and apply the results of feedback to show improved performance, these events are important in modelling the full assessment process which may be needed in new learning situations. Unless feedback is applied and used to demonstrate improvement, there is no way to tell if it has been effective. In sustainable assessment learners need not only to be recipients of such feedback, but they need to be able to arrange it for themselves and know when it is complete.

Care in the use of language to avoid creating premature closure on ongoing learning.

The messages given by assessors have a powerful—positive and negative—influence on learners' actions. The use of 'final vocabulary' (Rorty 1989) in assessment, that is the use of value-laden, judgmental words, has been identified as a mechanism for damaging self-esteem and inhibiting learning (Boud 1995a). Lifelong learners need to ensure that they are mindful of the language they use to refer to their own learning and do not develop bad habits of using excessively judgemental language. Self-oppression is often more difficult to extract oneself from than is oppression from a known external source.

In addition we need to acknowledge that sustainable assessment is not a notion that can be located in particular activities or which is independent of the context of learning. If it is a robust idea it will need to be continually reinvented and reconceptualised by teachers and learners over time. Also, sustainable assessment is not susceptible to being operationalised in an instrumental way. What is a sustainable activity in one situation or for one student may not be for another. An assessment task cannot be judged as contributing to sustainable learning simply through inspection of the instructions given to students. It is a function of many factors and like student approaches to learning, it must be seen as relational (Ramsden 1987). That is, the effect of sustainable assessment on learners depends on their interpretation of it and how they respond to the particular features of the task. It cannot exist independently of the environment of learning.

What will acceptance of the goal of sustainable assessment mean for teaching and assessment practice?

What are the implications of such requirements for existing courses? What foundation will it be necessary to provide within higher education? There is a substantial agenda to be explored. The following are some initial thoughts on what it might be:

Having the development of sustainable assessment skills as an explicit learning outcome.

There needs to be an entire new category of learning outcomes associated with equipping students to be effective assessors. Learning outcomes in this category will include learning self-assessment strategies, understanding and setting criteria, ability in identifying cues and clues from the context of learning, making appropriate judgements, giving and receiving feedback.

Providing opportunities for the practice of assessment skills in different knowledge domains and in differing circumstances.

It would be imprudent to assume that sustainable assessment involves readily transferable skills that once learned in one domain, could be applied in others. While further investigation of this is needed it would be reasonable to operate on the basis that considerable practice and feedback is needed in different contexts.

Checking existing assessment practices to examine whether they might have effects that contradict lifelong assessment outcomes.

We will find that much of what we presently do in assessment undermines this goal! For example, if students are not exposed to examples of what constitutes good work, they are likely to engage in negative modelling and adopt bad practices. If they are not

engaged in the construction and reconstruction of criteria for judging work, they will not be able to effectively establish criteria for work when a teacher is absent. If they only write essays, they may not be able to communicate in other modes. If they only learn to perform in unseen examinations they may not be able to deploy the range of resources of the normal work environment. If they only write theory, they won't know how to put ideas into practice. And so on.

Responding to the expectations of those who have existing well-formed views of assessment.

Taken-for-granted assumptions about the nature of assessment held by teachers and students can inhibit engagement with a conception of sustainable assessment. Views such as 'assessment is the job of the teacher' or 'you're the expert, how should I know whether this is any good' are not uncommon. Changing conceptions not only requires a good rationale, it means confronting enculturation and working through uncomfortable implications. As schooling changes, this task should become easier.

Finding ways of understanding one's own context.

It is a common observation that students will engage in many different assessment tasks with no thought of formal credit or grades in one course, but in another, they won't lift a pen without regard to the assessment weighting. There are many reasons for this: different disciplinary cultures, different pressures of competition and different staff ideologies. This suggests that we cannot simply consider institution-wide policies about sustainable assessment. While the principle might be accepted widely, the translation of it into practice needs to take account of many factors. In addition to those just mentioned, there are for example, different demands of subject epistemologies, professional bodies and course goals. These variations mean that a move to sustainable assessment requires an appreciation of them and how they are manifest in any particular course, faculty or location as well as how wider contextual influences impact on student learning (Boud and Walker 1998).

Accompanying assessment activities with acts of deconstruction and reconstruction.

We must learn to spot potential unintended effects before an assessment strategy is adopted. This involves firstly examining the effects of assessment on students' approaches to learning. Does this form of assessment tend to encourage students to take a surface or deep approach to learning? And secondly, to examine the effects of the assessment on students' approaches to self-assessment. Does it encourage students to meaningfully engage with criteria for good work in this area? Does it add to students' repertoire of self-assessment strategies? Does it prompt students to devise their own assessment strategies to better respond to the assessment tasks we have set?

Laying bare our understanding of our expertise to make it accessible to others.

If we are to expect students to seek criteria and standards to apply to their own work, we may need to be more transparent about our own expertise and what constitutes it, and make this knowledge available to learners. This involves us not in transmitting what we know, but in enlisting students in the processes of how we come to know what we know. While much of this may be tacit and difficult to articulate, a move towards great openness in standards requires us to make the attempt to be more explicit. This has already occurred on many fronts. It is uncommon now to find students being deprived of information concerning assessment weightings or course objectives, a further move to explicate and make accessible the standards we actually apply in marking assignments and in judging good work is needed. We must learn to focus on our expertise as learners and decentre our role as possessors of knowledge.

Ensuring assessment respects the integrity of knowledge.

The trap in all assessment activities is to fragment and compartmentalise knowledge and understanding for the sake of having a manageable process which fits the time constraints of common assessment methods. Much knowledge cannot be compartmentalised or commodified in this way. A holistic view is needed for sustainable

assessment. This would involve the use of assessment tasks that involve dealing with knowledge in context, application as well as analysis and capability as well as competence. This does not imply that students should not start from simple rather than complex examples, but that even the elements of knowledge should be seen in a broader context.

Perhaps the greatest challenge of all is to pursue this agenda alongside the dominant certification purpose of assessment. Time and resources will need to be displaced from the summative assessment function and redeployed to meet the broader educational objectives of sustainable assessment. This can only happen if developing lifelong learners is adopted as the core of courses rather than being seen as part of marketing rhetoric.

Conclusions

Sustainable assessment for lifelong learning is not a method or technique, but a way of thinking about all aspects of assessment practice. The notion is required to draw attention to the inadvertent effects of summative assessment and find ways of reforming it. Sustainable assessment does not aim to replace other purposes of assessment, but does need to find a place alongside assessment for certification and assessment for immediate learning. In the short term, given the erosion of formative assessment opportunities, this means that support for sustainable assessment will need to come from a shift of attention and resources from summative assessment activities and from reconfiguring teaching and learning processes to encompass this goal.

Assessment has very positive and negative effects. It has an impact on us all. It is personal, it influences our learning, our identity and it helps construct the society of which we are a part. All acts of assessment involve more than is apparent and we must judge them accordingly. Societies are formed through assessment. Unless the development of sustainable assessment thinking and practice is part of the curriculum at all levels, students will not be equipped to be lifelong assessors and will not be able to take a full place in a learning society.

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