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## INVOLVING STUDENTS IN ASSESSMENT

### A CONSIDERATION OF CURRENT ASSESSMENT PRACTICE IN HIGHER EDUCATION

The reason why it is desirable and infinitely sensible to have students involved and central to the assessment process is well illustrated by Boud and Falchikov (1989), 'teachers have limited access to the knowledge of their students and in many ways students have greater insights into their own achievements'. The fact that this is not normally recognised in higher education is a serious concern, as reflected by Boud (1995) 'there is probably more bad practice and ignorance of significant issues in the area of assessment than in any other aspect of higher education. Assessment acts as a mechanism to control students that is far more pervasive and insidious than most staff would be prepared to acknowledge'. This is unfortunate, as assessment is a foundation of student achievement and therefore regarded as a measure of institutional success. Why, if assessment is so important to undergraduate learning experiences, should bad practice exist?

There may be a number of reasons for a lack of student involvement. Increasingly in higher education, there is greater cross-disciplinary teaching taking place. Courses like forensic science involve tutors from different departments such as biology, chemistry and law, and each department may have their 'own' understanding of assessment within their own structure of assessment policies. Institutions may also be presenting tutors with too many assessment options without looking into or understanding them fully. In a recent publication, Knight (2001) presented fifty assessment techniques. For some, this diversity may be heaven sent, but for others it could be thoroughly overwhelming; and without guidance, many excellent tutors can be left not knowing where to begin.

Because of this mix of practice, assessment processes in higher education generate a mixture of concerns, such as:

#### *Criteria concerns*

- 'Norm' referenced marking; grading students according to how they compare against each other as a class. Norm referencing may still be the 'naturally' preferred model of assessment by most markers, Rust *et al.* (2003).
- Criteria referenced marking, where grading is expressed according to each student's performance, may have criteria and individual weightings that are often unclear and not constructed with the involvement of students.

#### *Assessment deficiencies*

- Learners ill-informed about what they need to know in order to understand or do. Interestingly, Gabb (1981) reported that the only piece of assessment information given to a cohort of students preparing to undertake final year projects was the name of the assessor. In response to this limited information, students deduced and developed their own sets of assessment rules, by which they tried to work out how best to pass the assessment.
- The development of a truly hidden and non-transparent curriculum, described by Sambell and McDowell (1998) as 'the shadowy, ill-defined and amorphous nature of that which is implicit and embedded in educational experiences in contrast with formal statements about curricula and the surface features of educational interaction.'

### Tutor folklore

- Community discussions between academics in a field developed through years of experience, concerning assessing and teaching (Edwards and Knight, 1995).

### Feedback concerns

- Feedback can be given too late to be of benefit.
- Feedback can be diminished in usefulness because students do not understand it or perceive its importance (Chanock, 2000).

Traditionally, so-called 'summative' assessment, (for example, end of module examinations), has been used to determine how much 'learning' has taken place. Used here, summative refers to an end-point mark, which influences student progression and may contribute towards their degree classification. Failing an assessment may mean students do not progress, yet passing does not always indicate meaningful learning, as demonstrated by these student interview quotes from Brown *et al.* (1998); 'you shall learn for an exam but you don't know the stuff. It's poor learning which you quickly forget', and 'you think just let me remember this for the next hour and a half. Then you don't care'. These students appear to see learning as an end product of assessment and view the learning quantitatively, which means that to be a good learner is to know more. The student learning which higher education needs to encourage is qualitative learning, where new material can be interpreted and incorporated, so that understanding is progressively changed through an ongoing, updating process (Biggs, 1996).

Underpinning many existing assessment processes is the issue of ownership and hence power. When referring to the goal of education, Rogers (2003) made the distinction between authoritarian or democratic philosophies. Heron (1992) distinguished authority in education as being either benign, luminous and truly educative, or punitive, indoctrinating and intimidating. It is the latter which formed the basis for his authoritarian model (so called because of the unilateral control of assessment by staff). For Heron (1988), power lay with those who make decisions about other people. Students are considered rationally competent to grasp a major discipline, but perversely are not considered competent to engage with the educational decision-making, whereby this grasp may be fully achieved. If, as Heron believed, the objective of the process of education is the emergence of a self-determining person, i.e. someone who can set their own learning objectives

(outcomes), devise a rational programme to attain them, set criteria of excellence by which work is assessed and assess their own work, then the 'unilateral control and assessment of students by staff means that the process of education is at odds with the objective of that process' (Heron, 1988).

### A NEED FOR CHANGE IN ASSESSMENT PRACTICE

Sixteen years ago, Heron (1988) thought the time was ripe for an educational change from the authoritarian model to one which is student inclusive. Almost ten years after Heron's call for change, came the publication of *Higher Education in the Learning Society*. The Dearing Report (1997), as it became known, perhaps noting that little, or no change had occurred, attempted to prime teaching staff in universities to make a professional commitment to teaching. Dearing addressed as a priority the improvement of the student learning environments, recommended that learning and teaching strategies should now focus on the promotion of student learning and stressed that a radical change to teaching was needed.

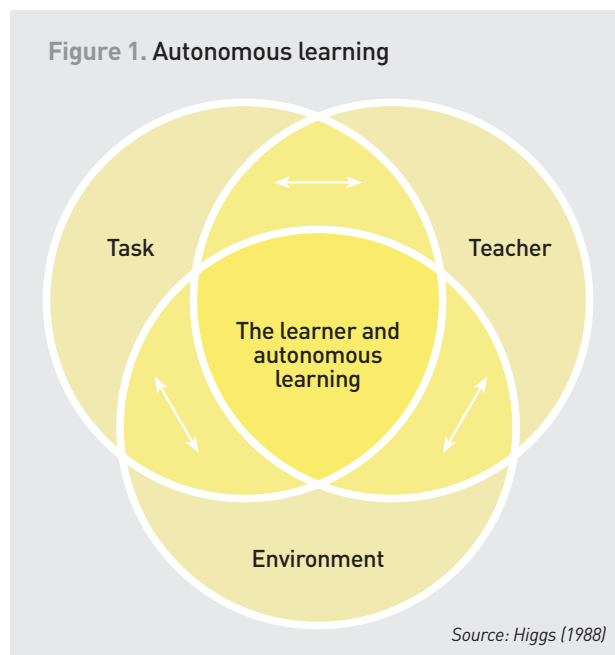
The impact of Dearing on assessment may be gauged by the comments of Brown and Glasner (2003), who noted that the range of ways in which students are assessed is unfortunately extremely limited with around 80 per cent of assessment being in the form of exams, essays or reports of some kind. This may only partly reflect what is assessed, consisting of a very limited range of student skills, knowledge and ability. Students appear to do the same old types of activities again and again. It may have been as a result of these same old activities that Boud (2000) was led to assert that 'assessment practices in higher education institutions tend not to equip students well for the process of effective learning in a learning society'. Boud's comments shed further light on the impact of the Dearing report, as the use of the 'learning society' formed part of its title. Dearing's view of the learning society reflected a 'vision' of a society (individuals, the state, employers and providers of education and training) committed to learning throughout life, more as a process or journey of discovery, rather than a ticked box outcome. Boud (2000) discussed a more complex view of the learning society in which 'those who are skilled and flexible learners will flourish, others will languish'. Thus a need for change within assessment is evident to encourage progressive learning, as skilled and flexible learners are unlikely products of Heron's authoritarian model of assessment. The way forward is to look for a model of student assessment which is inclusive, involving students and tutors working collaboratively. Self- and peer-assessments provide just that model.

### SELF- AND PEER-ASSESSMENT: A WAY TO IMPLEMENT CHANGE

Writing in the early 1950s, Rogers (2003) outlined the goals of democratic education, in assisting students to become individuals. He included such attributes as being 'a critical learner, able to evaluate the contributions made by others and being able to self-initiate actions and be responsible for those actions'. Furthermore, he went on to say that, 'we cannot teach another person directly; we can only facilitate their learning. A person learns significantly only those things which they perceive as being involved in the maintenance of, or enhancement of, the structure of self'. These are sentiments which underly self- and peer-assessment philosophy. The defining characteristic of self-assessment is the 'involvement of students in identifying standards and/or criteria to apply to their work and making judgements about the extent to which they have met these criteria and standards' (Boud, 1986). Peer-assessment has been defined (Topping *et al.*, 2000) as 'an arrangement for peers to consider the level, value, worth, quality or successfulness of the products or outcomes of learning of others of similar status'. From these definitions it becomes apparent that self- and peer-assessments are not methods of assessment but sources of assessment that may be used within a framework of different methods (Brown *et al.*, 1997).

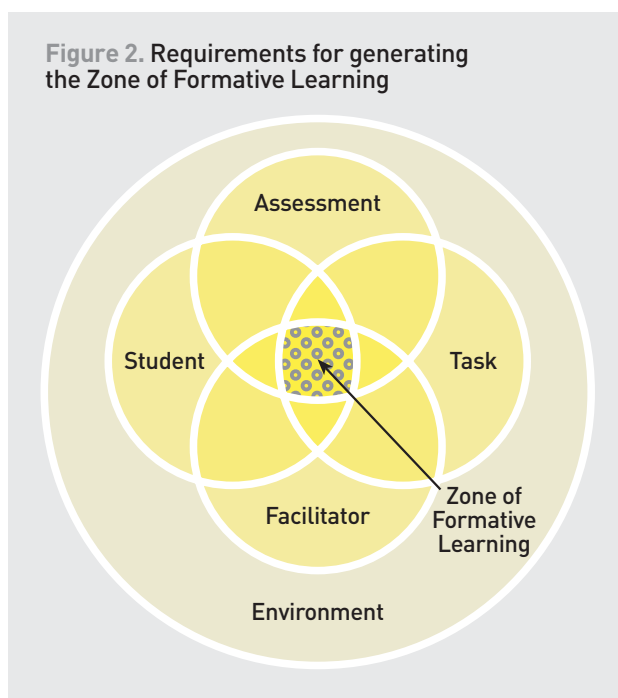
At the heart of both of these assessment processes is the student. Brew (1995) commenting on the conceptual shift in higher education from a focus on teaching, to a perspective in which student learning is central, illustrates the importance of this student centredness, 'the essence of the learning perspective is that it considers all decisions about teaching and assessment in the light of the impact or potential impact on student learning'. Both self- and peer-assessment appear to have an emphasis on developing student autonomy, which, while not an easy concept to define, does have 'some of the attributes required by anyone if they are to be effective learners'. After all, being dependent on others (teachers) and not being able to plan and manage your own journey, or process of lifelong learning will not be effective preparation for learning and the world of employment (Boud, 1988).

The model shown in Figure 1 from Higgs (1988) is of autonomous learning. It shows how the four principal elements of learner, teacher, task and environment interact together. How successful the interaction is, depends mainly on the extent to which the elements are consistent with each other and upon certain specific assumptions, such as, that self-directed learning needs to be active and not passive. More importantly, the outcomes of learning are



dependent on the assessment process. In the self-determining student who will be self-assessing, the assessment will be included in the process of learning, as well as work done on the content of the learning. Therefore assessing how learning takes place and considering how evidence is provided of what has been learnt is fundamentally more important than assessing what has been learnt or memorized. The shift to self-determination and self-assessment starts to make the process more important than content (Heron, 1988). Some may consider that Heron demotes content too much, believing, with some justification, that a balance needs to be established between the process of learning and the content of learning. However, the stress on the process and the content in self- and peer-assessment highlights the need for effective communication between students and tutors concerning the use of appropriate tasks and activities. This is well illustrated, for example, in the need for tutor and student to discuss and agree assessment criteria, which results in students having a greater degree of ownership of each assessment they are undertaking (Falchikov and Boud, 1989). While it is evident that greater ownership may also be related to a shift in power, a note of caution needs to be expressed. Tan (2004) argues that while self-assessment provides students 'with more autonomy to judge their own work, more is known about the students in terms of how they view themselves'. This has implications for how power is manifested within the assessment process. Therefore, it is vital for student empowerment to understand the ways in which power is exercised.

**Figure 2. Requirements for generating the Zone of Formative Learning**



With this increased ownership, it may be possible to reconsider Figure 1 to explicitly include assessment. In Figure 2, the environment provides the overall background in which the learning occurs. The environment is formed from a number of things such as, the learning and teaching beliefs of departments or faculties, as well as, the human and physical resource issues. The environment influences in varying ways the student, the facilitator, the assessment practice and the assessment task(s). These four separate components all overlap at a given focus, becoming one. It is here that students' learning is shaped; this is the Zone of Formative Learning. Assessment is, therefore, inclusive in the learning process.

Hinett (1995) in a study which compared assessment practice at a British University with that carried out at the Alverno College Milwaukee USA reported how effectively this close integration can work at an institutional level. A major difference in the approach to assessment was in the use of self- and peer-assessment. At Alverno; each student was actively encouraged to self- and peer-assess. Attitudes ranged from 'it's painful, but it works and I learn more' to 'I like self-assessment because I can reflect back and know I should study more in this area'.

At the British University little value was given to self- and peer-assessment, which meant students lacked confidence and faith in their own judgements. On self-assessment, some typical comments students made were that 'no-one takes it seriously' and 'it is just a hassle'. Furthermore, students learnt in a prescriptive environment, being told 'you will do this'. They generally validated their work in terms of

grades and admitted to getting into the mentality of 'what am I going to get out of this in terms of credit'. When asked 'How do you know what is expected of you?', the majority suggested that they didn't really know as 'they never actually say what they are looking for'. Students also often talked of 'guessing'.

Students at Alverno used feedback constructively, to help them to plan their work and to understand how they were developing as learners. Explicit criteria and learning integrated with the assessment process allowed students, through self-assessment, to take control of their own learning.

Before considering self- and peer-assessment in a little more detail, it would help to be familiar with some aspects of the learning process.

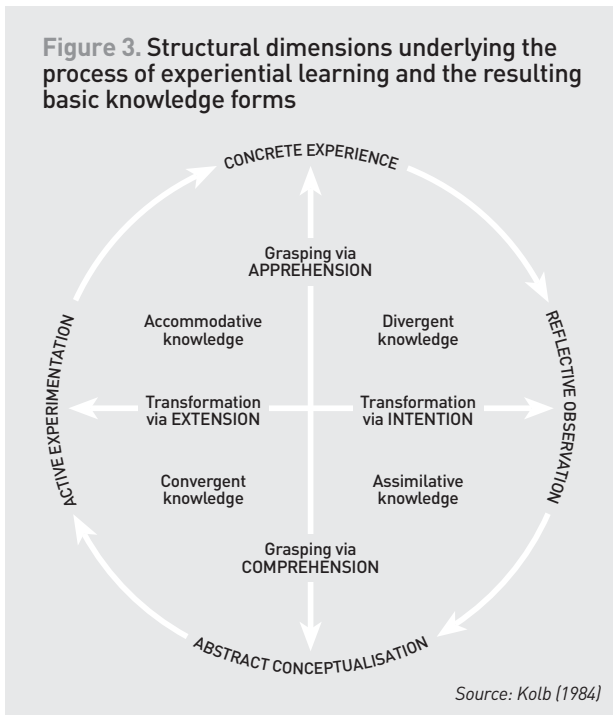
## THEORETICAL FRAMEWORKS TO LEARNING

Falchikov (2001) observed that 'too many educational initiatives appear to be devoid of theoretical underpinning, seeming to be driven by expediency, economics or political agendas'. Perhaps educational initiatives will go on being at least influenced by such as factors. However, learning through self- and peer-assessment can only be understood within a theoretical learning framework. There are two influential theories of learning that we need consider.

### *Piaget and learning*

Piaget believed that each child passed through a series of stages of thinking which were qualitatively different from each other (Sutherland, 1992). A child actively constructs their knowledge of the world around them as a result of various encounters with the environment, and also, by, communicating with other children, as discussion can challenge existing schemes or concepts leading to a re-think of an original point of view. In this way the child learns by a series of adjustments to their environment, which is achieved through using two alternative mechanisms within the process — assimilation and accommodation — which are balanced through equilibration. In this way, new material being assimilated by the learner can be modified against previous concepts, which are stored in the memory as learning progresses. These individual pieces of information are themselves up-dated by the mechanism of accommodation and transformed into new material and a more complete understanding. Piaget's views of learning are of particular importance to those of us in education in a number of rather significant ways. For example, they underpin the learning cycle proposed by Kolb, which has prominence in higher education as a model to aid understanding the learning process. Kolb's learning cycle has frequently been reinterpreted

**Figure 3. Structural dimensions underlying the process of experiential learning and the resulting basic knowledge forms**



and is often presented in a very simplified form. In Figure 3, the unabridged learning cycle (Kolb, 1984), with its strong reference to Piaget's work is illustrated. Looking at the cycle, we can see it represents a very personal cycle of learning, self-contained from outside social and professional influences. The learner is very reliant on their own perceptions of their learning experience.

### ***Vygotsky and learning***

Like Piaget, Vygotsky (1978) believed that children constructed their own learning. Vygotsky was aware that children, often unable to perform tasks or solve problems alone often succeeded when an adult helped them. Piaget took a dim view of success obtained in this way, claiming that it involved the teaching and learning of procedures and not the development of fully integrated learning and understanding. For Piaget, genuine intellectual competence was a manifestation of a child's largely unassisted activities (Wood, 1988), whereas Vygotsky saw intervention as important. 'The difference between twelve and eight, or between nine and eight is what we call the Zone of Proximal Development (ZPD). It is the distance between the actual developmental level as determined by independent problem solving, and the level of potential development as determined through problem solving under adult guidance or in collaboration with a more capable peer' Vygotsky (1978).

For Vygotsky, 'learning awakens a variety of internal developmental processes that are able to

operate only when the child is interacting with other people in his environment and in cooperation with his peers. Once these processes are fully internalised they become part of the child's independent development achievement'. Therefore, while both Piaget and Vygotsky placed a very strong emphasis on activity as the basis for learning, Vygotsky emphasised communication and social interaction, where teachers (either adults or more experienced peers) retain varying degrees of influence over each child's learning activities. Wood *et al.*, (1976) saw the intervention of a tutor as involving a kind of 'scaffolding' process that enables a child or novice to solve a problem or achieve a goal which would be beyond his or her unassisted efforts.

The theoretical underpinnings of the work of Piaget and Vygotsky are recognisably used in higher education today with regards to self- and peer-assessment. Peer-assessment is grounded in philosophies of active learning, and may be seen as being a manifestation of social construction, because it involves the joint construction of knowledge through discourse (Falchikov and Goldfinch, 2000). Falchikov (2001) draws our attention to both the work of Piaget and Vygotsky with respect to peer tutoring, and emphasises the role of self- and peer-assessment in peer tutoring. One of the arguments used by Falchikov (2003) to illustrate that self- and peer-assessment are for educational and not just training purposes is that Piagetian theory stresses the importance of practical concrete experiences for cognitive development. The role of experience, with social and cultural influences in learning, is very relevant to self-assessment (Brew 1995). MacDonald (2004) discussed the practical implications of implementing online pedagogies and stressed the communicative potential of e-learning employing a social constructivist approach. It has already been seen how Piagetian thinking is compatible with Kolb's learning cycle; but Kolb (1984) also appears to draw on a Vygotsky social constructivism. This, a less discussed aspect of the Kolb learning cycle, is of immense importance in relation to self- and peer-assessment.

## **APPROACHES TO LEARNING**

### ***Deep and surface approaches***

A number of advocates of self-assessment relate approaches to learning as so-called 'deep' and 'surface'. Marton and Saljo (1976) explored the processes and strategies of learning used by students as well as the outcomes of that learning, in terms of what is understood and remembered. They found two different levels of processing which they called deep-level and surface-level processing. 'In the case of

surface-level processing, each student directed his attention towards learning text itself (the sign), i.e. he had a reproductive conception of learning which meant that he was more or less forced to keep to a rote-learning strategy. In the case of deep-level processing, the student was directed towards the intentional context of the learning material (what was signified), i.e. he was directed towards comprehending what the author wanted to say about a certain scientific problem or principle' (Marton and Saljo, 1976). Students are not necessarily deep or surface learners, but they can take a deep or surface approach to learning depending on the circumstances. For example, someone might normally adopt a deep approach to a subject, but under pressure of an impending examination they might switch to a surface approach (Brew, 1995).

## SUMMARY

Students are central in both self- and peer-assessment. As such, both sources of assessment can be used to enthuse, enable and empower students within a variety of assessment methods. The evidence for the type and approaches to learning encouraged by self- and peer-assessments is theoretically strong, with an emphasis on students constructing knowledge within a formative learning environment. With self- and peer-assessment, learning is more fully integrated with assessment, and not just a by-product of assessment. Ideally, students should grow in the use of self- and peer-assessment throughout their university experience, because the ultimate goals, successful and meaningful learning, are essential in preparation for the learning society.