Know what I mean? Enhancing student understanding of assessment standards and criteria

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Abstract

In recent years there has been an increasing emphasis in higher education on the explicit articulation of assessment standards and requirements - whether this emanates from calls for public accountability or based on ideas of good educational practice (Ecclestone, 2001). We argue in this paper that a single-minded focus on explicit articulation, whilst currently the dominant logic of higher education, will inevitably fall short of providing students and staff with meaningful knowledge of standards and criteria. Inherent difficulties in the explicit verbal description of standards and criteria make a compelling argument for the consideration of the role of structured processes that support the effective transfer of both explicit and *tacit* assessment knowledge. With reference to both empirical evidence and the literature we propose a conceptual framework for the transfer of knowledge of assessment criteria and standards that encompasses a spectrum of tacit and explicit processes, which has proven to be effective in practice in improving student performance.

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Introduction

Few would argue with the assertion that assessment lies at the centre of the student experience and is a dominant influence on student learning (Brown and Knight, 1994; Ramsden, 1992). As a result much has been written about how to get assessment practice right - whatever 'right' means in different contexts and however tricky the task. This paper examines one aspect of trying to get assessment practice right: how to make our (as assessors) perceptions and expectations of assessment - requirements, standards, and in particular, assessment criteria – known and understood by all participants, especially students. With reference to both empirical evidence and the literature we argue that a single-minded focus on the explicit articulation of assessment standards and criteria, whilst currently the dominant logic of higher education, will inevitably fall short of providing students with meaningful knowledge of that which is required of them. Consequently, arising out of a five year research project into criterion-referenced assessment, we present a conceptual framework for the transfer of knowledge of assessment requirements and standards that encompasses a spectrum of tacit and explicit knowledge transfer processes.

The Changing Context of Higher Education

Arguably, in the past the promulgation of academic standards and assessment criteria was much simpler. Assessment communities were more stable, homogeneous and close-knit (Ecclestone, 2001). Academic programmes were less fragmented,

consequently, course components ran over longer time periods in which understanding could be transferred between staff and students through shared experience at a more leisurely pace. Assessment judgements were based on the tacit professional expertise of teachers, an elite 'guild' of professional assessors, whose professional judgement was mysterious in nature, and inaccessible to the layman.

Since the 1980s, however, there has been growing national concern in the UK over marking reliability and standards and calls for public accountability within higher education (Laming, 1990; Newstead and Dennis, 1994). There was, and is, pressure for institutions to maintain high and consistent academic standards within the context of a massive expansion of higher education (Lucas and Webster, 1998), amplified by increasing student hunger for, and expectations of, high grades (Ecclestone, 2001). More fragmented academic communities and modular courses have further encouraged an increasing dependence on explicit systems and procedures rather than on face-to-face interactions (Winter, 1994). In an effort to meet these pressures higher education institutions and national education bodies have largely focused on the need for increased transparency in assessment practices - all stakeholders seeking the precise articulation of academic standards and assessment requirements. These days, not only should academic standards and assessment judgements be consistent and reliable (a task that becomes increasingly difficult as class sizes increase along with a consequent expansion in the size of marking teams) but, they must also be transparent and demonstrably known and trusted by all stakeholders. The secret nature of assessment deliberations is no longer seen as acceptable (Sharp, 1996).

In response to these pressures the Quality Assurance Agency (QAA) embarked on a project to establish benchmarking standards. However, it is interesting to note that when these standards were published in May 2000 they were re-titled benchmarking *statements.* Arguably, this change of terminology signalled the difficulties involved in clearly articulating explicit standards (Price et al, 2001). At a conference on Benchmarking Academic Standards (QAA, 17th May 2000), Chairs of the QAA subject panels commented on the difficulties of defining threshold standards and using language that meaningfully conveyed level. More recently, the development of the National Qualification Framework has further highlighted the complexities involved in articulating useful and meaningful level descriptors.

We can sympathise with the difficulties faced by the QAA panels because since 1996, we too had been attempting to clarify undergraduate assessment standards and criteria. Our attempt had not been at a national level but located in just one school (the Business School), in one institution (Oxford Brookes University). But even in this localised context of a close-knit academic community we had run up against serious problems.

Know what I mean?

Initially, we thought making assessment criteria and standards transparent and understandable to staff and students alike could be achieved fairly simply through the development and application of explicit school-wide assessment criteria and grade descriptors. A criterion assessment grid (rubric) was developed which plotted commonly used assessment criteria in matrix format against grades resulting in grade descriptors that detailed acceptable performance for each criterion at each grade. The

development and application of this grid has been reported in detail elsewhere (Price and Rust, 1999; O'Donovan et al, 2001). More relevant to this paper is the finding that despite our best efforts, on their own, the explicit assessment criteria and grade descriptors failed to transfer meaningful knowledge on assessment standards and criteria to students. Difficulties encountered, firstly, in the clear and precise *articulation* of marking criteria and standards and, secondly, in the *accurate receipt* of this understanding by relevant participants undermined the effectiveness of the project. Challenging difficulties, which arguably indicate that today's over-reliance on explicit knowledge could perhaps be as naive as the over-reliance on tacit knowledge had been in the past for the communication of assessment criteria and standards.

Verbal descriptions of standards are always somewhat vague or fuzzy and often a matter of degree – indicative of relative rather than absolute positions, and are context dependent (Sadler, 1987). One major indication that our grid failed to define level was that different tutors in the Business School had used the assessment grid, and consequently exactly the same grade/level descriptions, for a first year undergraduate module and a masters level module, apparently without any difficulty whatsoever. Sadler (1987) argues that fuzzy levels are unavoidable in standards specified in linguistic terms. What is, for instance, 'highly evaluative' or 'reasonably coherent' depends on the assessor's expectations and knowledge of the context. A piece of work marked and given feedback as being 'highly evaluative' would, we expect (and hope), contain a different level of evaluation at, say, first year undergraduate level than at master's level, but the verbal description might well remain the same.

The assessment criteria themselves were also subject to multiple interpretation by both individual staff members and students - an issue previously highlighted by other pedagogic research into assessment criteria (see for instance, Webster et al 2000; Freeman and Lewis, 1998). Staff, interpreting the meaning of words such as 'synthesis' or 'analysis' differently from individual to individual, begging the question – if even we as 'experts' cannot always agree on the meaning of commonly used criteria how can we expect 'novice' students to mirror our interpretation?

Our initial response to these obstacles was to seek to redraft the grid to more tightly specify the criteria and grade descriptors. However, relative terms require an anchor point to communicate definitive standards (Sadler, 1987), and in practice, we found that a single-minded concentration on the construction of ever more comprehensive and precise anchor definitions quickly became self-defeating. Firstly, as the very precision of language and terminology progressed explication away from common parlance, and (as our research suggested) as a consequence definitions became less accessible to novice students (O'Donovan et al, 2001). Secondly, achieving a workable balance between precision and utility proved to be a difficult feat - increasing the quantity of explanation made for unwieldy and less transferable definitions. Knowledge of what is being sought from a specific assessment is contextual and, therefore, vast expenditure of time and energy on evermore detailed verbal explanation can be a thankless task that is, pragmatically, uneconomic in the long term.

It is difficult to relinquish the notion that academic standards can be documented and codified in such a way that they may be available for the passive consumption of all stakeholders in higher education. But if commissioned experts were unable to make

standards explicit after months (years?) of learned discussion, and after five years of effort within a close-knit academic community we also were still coming up against major barriers (barriers which have also been documented by other researchers) it was clearly time to return to basics and question assumptions and look to other methods of facilitating the transfer of knowledge of assessment criteria and standards.

Transferring knowledge

Without going too deeply into the philosophical debate about what knowledge is, we can say that academic discourse has moved away from the positivist view that knowledge is an objectified and monistic absolute truth (Stenmark, 2000). Human knowledge exists in different forms, and although several ways to classify knowledge exist, many build on the influential work of Polanyi (reprinted 1998) and his distinction between explicit and tacit knowledge.

Most commentators view explicit knowledge as conscious knowledge that can be put into words and can be expressed clearly and communicated openly in ways that are unambiguous for all concerned. It is knowledge that can be captured and codified into rules, procedures, manuals, etc. and is easy to disseminate. Tacit knowledge, on the other hand, is defined variously as that which is learnt experientially or in terms of its incommunicability – knowledge that cannot be easily articulated and is elusive, in Polanyi's words 'we can know more than we can tell' (Polanyi, 1998, p.136). These words uncannily echo the normative, 'connoisseur' model of assessment typified by the phrase - 'I cannot describe it, but I know a good piece of work when I see it'. A model of assessment judgement most often likened to the skills of wine tasting or tea-blending and 'pretty much impenetrable to the non-cognoscenti' (Webster et al., 2000,

p.73). This model of assessment is based on tacit knowledge gleaned from professional experience and contrasts with the pursuit of explicit criteria and performance standards. A contrast that mirrors the explicit/tacit knowledge divide where they are treated as two distinctively separate types of knowledge. However Tsoukas (2001) among many others (including Polanyi, reprinted 1998) argues that tacit and explicit knowledge are inseparably related and that all *knowledge* has a tacit dimension - the term knowledge, however, is used here as distinct from information or data.

Tsoukas suggests that data, information and knowledge are three concepts that can be arranged on a single continuum depending on the extent which they reflect human involvement with, and the processing or construction of, the reality at hand (2001). Data may be simple observations of the state of the world, whilst information is data that has been patterned, organised or constructed for some specific purpose. Knowledge, however, is information that has been contextualised, seen as relevant, given a valid meaning and capable of being related to experience and put to productive use (Davenport, 1997). Data, therefore, may take the form of a list of marks or grades achieved by students in a particular assessment, and, say, the mark for Jane Blow is noted as 63%. Information is when this list of marks has been formally organised and used, for example, recording purposes - Jane Blow's mark of 63% is put on her student record. Knowledge is when this information is actively engaged with, it has meaning (or, more accurately, multiple meanings), the course leader may evaluate the marks in some way, perhaps patterning them to see the attainment of students in different parts of the assessment and changing teaching practice accordingly. Jane Blow maybe pleased with her 63% mark regarding it as a

'high mark' in the context of both her grade point average, her perception of her effort and ability (in relation to that of others), as well as course, subject and national contexts. 63% having a very different 'meaning' in the UK than the USA, as well as in different subject areas (Yorke et al., 2000). The mark of 63% becomes much more than a numerical description, it takes on meaning depending on its use and how it is fitted into the complex tacit universe of social or organisational praxis (Spender, 1996). In short, knowledge is seen as constructed and more meaningful and useful than information or data, and the construction of this useful or meaningful knowledge embraces both explicit *and* tacit dimensions. Consequently, a single-minded concentration on explicit knowledge and the careful articulation of assessment requirements and standards is not, in itself, sufficient to share meaningful knowledge of the assessment process. Baumard goes further, not only acknowledging the importance of tacit knowledge in the development of understanding, but also suggesting that this important tacit dimension can be ‘crushed or stubbed out by an over-emphasis on explicit knowledge’ (1999, p.194). Perspectives that support a social constructivist approach to learning, the central idea of which is that human learning is constructed - learners must actively engage in constructing meaning from learning experiences, actively make sense of new knowledge and integrate this knowledge with previously held understandings. This 'making sense of the world' is seen as an active, social and embodied process (Vygotsky, 1978; Cunliffe, 2002)

A conceptual framework for the transfer of meaningful knowledge on assessment requirements and criteria

Although all meaningful knowledge has a tacit dimension, the relative importance of the tacit and explicit dimensions depends on context. However, the difficulties

inherent in articulating assessment standards and criteria arguably signal the highly tacit nature of this knowledge. Here, we should quickly clarify our position - we are not advocating the connoisseur model of assessment in which tacit knowledge of assessment standards is held solely in the heads of assessors, and assessment judgements are dealt out seemingly arbitrarily and with little accountability. Not only is fairness an issue under such a regime, but also students develop little evaluative ability themselves, and as Sadler suggests, such ability is almost certainly a precondition for being able to monitor one's own learning (1987). More pragmatically, it would also be naïve to think that today's stakeholders would be so trusting! However, because of the difficulties inherent in the complete articulation of assessment standards and criteria it does seem reasonable to examine other ways that could more effectively support the transfer of tacit knowledge to all constituents.

Many definitions of tacit knowledge, because of its elusive nature, concentrate on what it is *not* ('knowledge that can*not* be articulated or codified, etc.). Arguably, tacit knowledge, itself, can be transferred through discussion on what it is *not*. For example, assessment feedback can tell a student that a particular assignment was not, say, 'critically evaluative' without explicitly revealing how critical evaluation could be demonstrated within the context of the specific assignment. Over time such negative comments can build-up and transfer a mental picture of what is being sought through a process of elimination. But this does take time, and in a modular environment students have limited time to construct cohesive interpretations of what is required by multiple and various assessment components and by different assessors.

The fact that an assessor cannot wholly articulate his or her tacit knowledge of standards does not mean that this knowledge cannot be communicated in other ways, some experts take a more positive approach to defining tacit knowledge and how it can be transferred effectively. Nonaka, among others, states that tacit knowledge is experience-based and can be revealed through the sharing of experience – socialisation processes involving observation, imitation and practice (Nonaka, 1991; Baumard 1999). Sadler, suggests that academic standards reside 'essentially in unarticulated form inside the heads of assessors, and are normally transferred expert to novice by joint participation in evaluative activity' (1987, p.199). So, for example, the shared experiences of marking and moderation among staff can support the dissemination of tacit knowledge resulting in more standardised marking over time. It follows that inviting students into this shared experience should also enable more effective knowledge transfer of assessment criteria and standards. For although we may obtain tacit knowledge when we are least aware, it can also be instilled consciously through practice, and consequently can be transferred in a structured and considered process more rapidly and effectively.

However, mirroring the complexity of the assessment process and the nature of knowledge, ways of enhancing a meaningful understanding of assessment requirements do not lie in either explicit or tacit knowledge transfer methods. The effective transfer of such knowledge lies within a combination of methods that are mutually complementary and interdependent. In considering a number of different practices used in assessment a spectrum of different methods between explicit and tacit knowledge can be identified. Practices that range from those that are principally explicit and transferred through articulation and the principally tacit that can only be

transferred through social processes involving the sharing of experience through methods such as practice, imitation and observation. Analogous to the spectrum of visible light we suggest that for students to 'see' or meaningfully understand assessment criteria and standards they need to engage with, not all the elements, but a carefully considered combination of elements from along this spectrum.

TYPE SETTING NOTE PLACE FIGURE 1 HERE

Figure 1: An illustration of a spectrum of processes supporting the transfer or construction of knowledge of assessment requirements, standards and criteria

Whilst it is emphatically *not* our intention to defend the exact position of each of the knowledge transfer processes depicted in Figure 1 (as exact positions depend on the contextual features of each activity), we do suggest that whilst there have been many interesting teaching innovations on the right hand (tacit) end of the spectrum there currently is more emphasis on explicit processes.

Effectiveness of knowledge transfer processes in assessment

Traditional approaches to the transfer of knowledge on assessment have relied heavily on methods depicted on the left hand side of the spectrum (such as provision of explicit learning outcomes, marking criteria, and subsequently feedback on the student's work) - whether this emanates from political imperatives to make higher education more accountable or based on educational assumptions that doing so is good practice (Ecclestone, 2001). However, this reliance is problematic, Hussey and

Smith suggest that the 'alleged explicit clarity, precision and objectivity [of written learning outcomes] is largely spurious' (2002, p. 232) as they can only be interpreted correctly if perceived against the backdrop of contextual understanding. Similarly, multiple interpretations of assessment criteria by staff and students undermine their objectivity and cause them to be problematic to transfer (Price and Rust, 1999). Research has shown that even the most carefully worded feedback on an assignment can hold little meaning for students. Maclellan states that ' most students do not view feedback on their learning as either routinely helpful in itself or as a catalyst for discussion' (2001, p. 316).

The use of transfer processes such as dialogue, observation, practice and imitation to share tacit understanding of assessment requirements (as featured in processes situated on the right-hand side of the spectrum) is not new, and the literature points to their effectiveness. Marking exercises have long been used with staff to facilitate consistency and reliability in assessment (Radnor and Shaw, 1995; Saunders and Davis, 1998). Evidence from the literature on peer-marking using model answers (Forbes and Spence, 1991; Hughes, 1995; Stefani, 1992) also highlights the effectiveness of marking exercises for students – detailing the consequent improvement in students' work and in students' positive perceptions of the value of the activity. Orsmond et al's study reported that not only did students enjoy peer-marking exercises but felt they benefited from them by becoming more critical and working in more structured ways (1996). These findings arguably demonstrate that inviting students into the marking process can mean that assessment broadens out from merely the assessment *of* learning to become an effective learning tool in its own right, facilitating assessment *for* learning. Thus 'enabling students to fully

understand their own learning and the goals they are aiming for' (Elwood and Klenowski, 2002 p. 244).

The use of exemplars (as in key examples) has also been cited as a valuable method to transfer understanding of marking criteria and subject standards (Sadler, 1987, Orsmond et al, 2002). Exemplars (for instance an 'A' grade piece of work) can be very effective indicators of standards supporting the transfer of tacit knowledge that is otherwise difficult or impossible to articulate.

Our own research undertaken with large classes of students (300+) has shown that engaging students in a series of activities, taken from along the spectrum, can significantly improve student performance, but need take only a very modest amount of contact time to implement (reported in full in Rust et al., 2003). For three years we have replicated an action research project that has supported the active engagement of students with assessment criteria and standards through the use of a 'marking workshop' involving student marking of two exemplar pieces of work ('A' grade and borderline), peer and tutor discussion of criteria and then a remarking of the exemplars (as well as the explicit written articulation of learning outcomes and criteria).

Our findings (replicated for three years) show students who undertake this optional marking workshop demonstrate a significant improvement in performance compared to those who do not. Even though base line comparison of the performance of the two groups, undertaken prior to the intervention, shows no significant difference in performance (Rust et al., 2003). Since the start of the project we have tracked the

performance of two cohorts of students in assessment tasks with similar criteria undertaken at least a year later and demonstrated that the improvement sustains at a significant, if somewhat diminished, level.

Conclusion

A single-minded focus on explicit articulation falls short of providing students and staff with common and meaningful knowledge of standards and criteria. No one method of knowledge transfer, either explicit or tacit, by itself is robust enough to deliver meaningful knowledge. Meaningful knowledge of assessment and standards is best communicated and understood through the use of a combination of both explicit and tacit transfer processes. Even if an assessor could articulate precisely the standard of work required for a specific assessment task, and on what basis assessment judgements will be made, (and there are many who would dispute the possibility of such a feat), there is no indication that others will internalise a similar understanding (to that of the assessor) from an exclusive use of verbal description. Tacit knowledge provides the backdrop against which explicit knowledge can be interpreted and understood. We must refrain from the temptation to give yet more and more explanatory detail and guidelines to assessors and students (Ecclestone, 2001) lest the whole edifice crumbles under its own weight and is replaced with a stark realisation that no meaningful knowledge has been transferred in the unwieldy process. A more structured approach to the sharing of knowledge on assessment standards and requirements, in which a carefully considered combination of transfer methods is selected from along a spectrum of explicit/tacit options, will yield greater understanding, and perhaps at less cost than the single-minded pursuit of totally precise and explicit articulation. Clearly, we should invest the same time and

academic rigour in the consideration of the transfer processes of assessment knowledge that we currently invest in the formulation of assessment tasks, and such consideration will enable assessment *for* learning.

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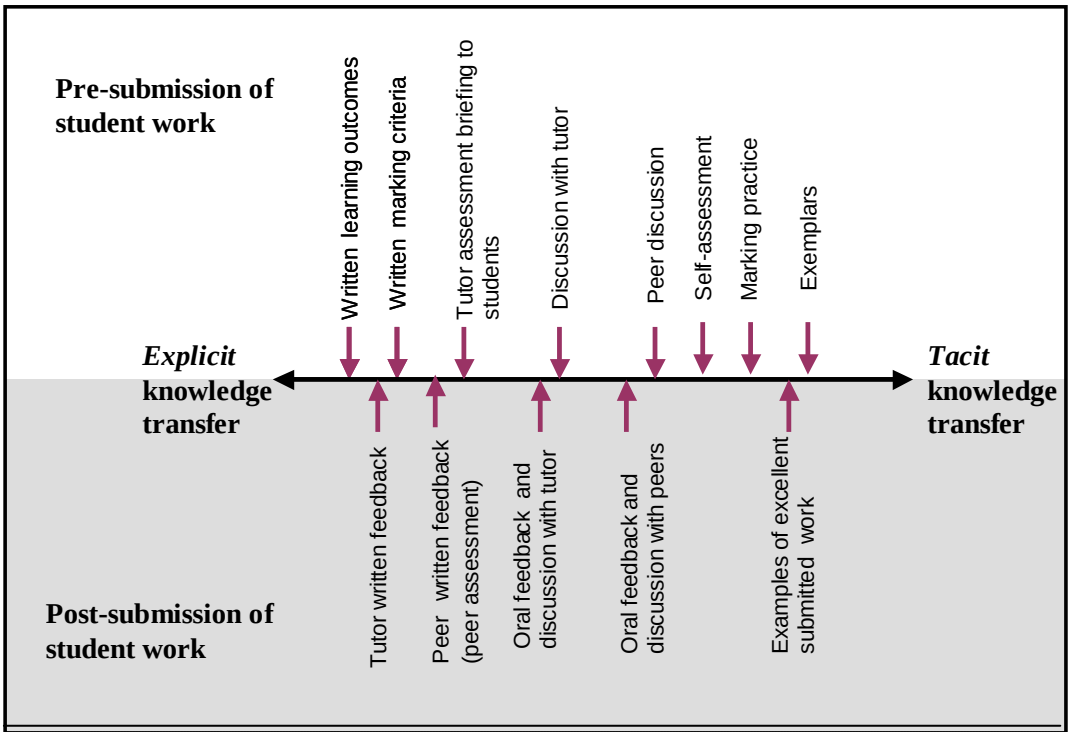

Figure 1: An illustration of a spectrum of processes supporting the transfer or construction of knowledge of assessment requirements standards and criteria