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ARTICLE

Summative and formative assessment

Perceptions and realities

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ABSTRACT Assessment is critically important to education both for accreditation and to support learning. Yet the literature dealing with formative and summative assessment definitions and terminology is not aligned. This article reports an empirical small-scale study of lecturers in Education at an English university. The research posits that these lecturers, owing to the inconsistencies and infelicities in the literature, will have an incomplete and unharmonious understanding of summative and formative assessment and the relationship between the two. The results show that lecturers' understanding of assessment terminology and relationships reflects the fragmented theoretical and practical frameworks available. This study would seem to signal the need for us all to examine our assessment processes in order to (i) be clear and explicit on what we do, (ii) understand how assessment processes relate to each other, and (iii) evaluate how they impact on our practice and our students.
KEY WORDS: *assessment, formative, practice, summative, theory*

Assessment

Is summative assessment a product or process?
Is self-assessment a summative or formative assessment exercise?
Can formative assessment be used for grading?
Where can we find the answers to these questions?

Assessment vies with learning for supremacy at the heart of the educational experience. This is reflected in the tension between formative and summative assessment functions, that is, assessment to support learning and assessment for validation and accreditation, although these are not separate or fixed paradigms (Wiliam and Black, 1996). Given this, it is incongruous

that the education community has not prioritized the harmonization of the two processes. The work of Black and that of Wiliam (Wiliam and Black, 1996; Black and Wiliam, 1998; Wiliam, 2000; Black, 2003b; Black, 2003c; Black et al., 2003; Wiliam et al., 2004) has promoted and developed formative assessment practice in schools as has that of Torrance and Pryor (1993; 1998; 2001); the assessment for learning movement has been fundamental in prioritizing formative assessment for learning over summative assessment for validation and accreditation despite the 'tension' between these two functions.

In the higher education and staff development context, Boud (1995) and Cowan (1998) have promoted student self-assessment with a comparable formative aim. In all cases, pertinent feedback has been the essential element to promote learning. In the compulsory sector, the tension is exacerbated by the current separation of teacher and classroom assessment (denoted formative assessment) from external and often national assessment (denoted summative assessment). In the higher education context, it is easier to reconcile the two, and easier perhaps as a consequence, to analyse the theoretical framework, since all assessment is controlled and is the responsibility of the lecturers. However, given that lecturers, particularly those in Education departments, are those who support and help train teachers, the two contexts cannot sensibly be separate or separated. We are still at a stage where co-ordinating higher education and school issues is difficult, but cross analysis could be a key factor in helping to resolve these problems.

On the theoretical level, Sadler (1989; 1998) has provided a coherent theory of formative assessment and feedback. However, this does not explicitly examine either summative assessment or its relationship with formative assessment: the few references to summative assessment do not overtly discuss or clarify the relationship. A discussion of the explicit relationship between summative and formative assessment processes has been absent from educational discussions and yet it is difficult to understand either summative or formative assessment if we are not aware of it (Taras, 2005). More seriously, the absence of this discussion has resulted in the distortion of this relationship, which has led to a misunderstanding of both assessment processes.

Functions have been widely discussed and are social parameters relating to the purpose of assessment: they influence the criteria, the goals and the standards but do not impinge on the process in any way (Scriven, 1967: 41). Even in an educational context, often it is the social needs which predominate and are open to abuse (Broadfoot, 1996; Filer, 2000). Functions are many and can be combined into multiple uses (Black and Wiliam, 1998; Sebatane, 1998). The terrors evoked by the term 'assessment' have distorted perceptions of its necessity, centrality and potential neutrality.

Indeed 'assessment' is considered so negative that the term 'evaluation' was preferred for many years. Currently, formative assessment is the antiseptic version of assessment and summative assessment has come to represent all the negative social aspects (Scriven, 1967: 42).

It is this desire to suppress the negative and destructive side effect of assessment which devalues personal worth and future prospects, that has prompted many educationalists to see summative assessment in a negative light and promote formative assessment (Torrance, 1993; Sebatane, 1998; Black and Wiliam, 1998; Wiliam, 2000; Torrance and Pryor, 2001: 624; Black, 2003b; Black, 2003c; Black et al., 2003). Society at large naturally, and rightly, makes judgements; the misuse of these judgements does not invalidate or minimize their necessity. It seems that the very fear of the possible social misuse of assessment has distorted our view of it (Scriven, 1967: 41). Assessment is both a natural phenomenon in that we evaluate every aspect of our lives (Rowntree, 1987; 4), and a political issue since it normally leads to practitioners making decisions based on the dominant discourse and so exerts control over others. The dominant discourse or 'control by consent' (Gramsci, 1971; Fairclough, 1994; Talbot et al., 2003: 2, 319) in educational assessment has confused functions and process despite Scriven's warning; in addition, it has confused the relationship between formative assessment and summative assessment (Taras, 2005).

Research into learning and teaching, which involves classroom pedagogy on the one hand, and the theoretical principles on which they are based on the other, is therefore of great importance to the momentum of change in education. In the assessment literature, discussion around the tension between functions of summative and formative assessment has been prevalent. Despite Black and Wiliam and the Assessment for Reform group suggesting that it is not realistic to separate the two types of assessment (Black and Wiliam, 1998; Wiliam and Black, 1996), Wiliam (2000) notes how difficult it is to reconcile the two. Torrance and Pryor (1998) suggest little work on formative assessment has been done as opposed to comparing summative and formative assessment: this comparison however focuses almost exclusively on the functions of assessment. Their longitudinal research, unlike that of Black et al. (2003), keeps formative assessment separate from summative assessment. A theoretical framework which is inconsistent would perhaps require segmentation of its parts to be accepted; when it is not possible to build up a composite and complete theoretical picture, since it does not exist, then, pockets or parcels of theoretical information are built up and drawn upon when required.

However, we are all land-locked by the available theoretical frameworks (Fairclough, 1994; Stronach, 1996). If these are flawed and incomplete, then it is inevitable that this will be reflected in our understanding of both

the theory and the practice and the link between them. Therefore, this study will serve to illustrate how strong and binding dominant frameworks can be for a particular group in a specific context. Because of this, and in an attempt to disentangle this framework, the questionnaire given to education lecturers attempted to balance questions between the education process, product and functions of formative, summative and self-assessment.

The study has a dual purpose. Firstly, to provide some insight into lecturers' understanding of assessment practice and how it relates to theory, and secondly, to show that current frameworks perpetuate an understanding which is confused and illogical. The study posits that there will be firstly, lack of clarity in the working definitions of formative and summative assessment, and secondly, lack of clarity and understanding in the relationship between formative and summative assessment since understanding must follow the current available frameworks. A related issue is the importance of engaging explicitly with theory. Tight notes, 'Higher education researchers, for the most part, do not appear to feel the need to make their theoretical perspectives explicit, or to engage in a broader sense in theoretical debate' (Tight, 2004: 409).

Against this background, the present empirical study tests the clarity in the working definitions of formative and summative assessment and the clarity and understanding in the relationship between formative, summative and self-assessment of a group of university lecturers. Given the universality of the necessity for assessment, we need to ask ourselves comparable questions to the ones proffered in this study in order to work towards a clear understanding of a feature which is so central to education. Despite the extensive literature on formative assessment, most of us are not left with a clear understanding because most of it focuses on functions. There is an important caveat as concerns the processes of assessment and how formative, summative and self-assessment interrelate in terms of process. This research begins to explore this caveat and relate it to a group of lecturers' understanding of assessment terms, relations and processes.

Research method

The participants were lecturers in an Education department at an English university. Education lecturers were selected because they are positioned at the interface of HE and the compulsory sector. Data was collected at a staff development day to maximize data collection. This is opportunity sampling. A questionnaire with 44 questions (see Appendix 1) was given to 50 lecturers. A pilot study of the questionnaire was carried out on five members

of staff and minor alterations of layout were made to the questions, and questions 17 to 21 were added, which deal with student self-assessment and the importance of theory. The questions on definitions were attenuated to 'rough definition' since staff felt nervous about not being sufficiently accurate. The questionnaires of the pilot did not form part of the final 50 questionnaires.

To ensure identical conditions, the questionnaires were filled in prior to a presentation by one of the staff. Fifty questionnaires were given out, completed and collected immediately. Staff were instructed to answer the questions in order and not to go back. Staff did not always answer all of the questions. To increase accuracy in reporting the findings, the percentages provided were all calculated out of 50, the number of people who participated, but, the figures (shown in brackets) reflect the number of responses to each question. An element of triangulation, in addition to the pilot study, existed since the staff were informed that although they should not confer on the answers, they could ask for clarification of the questions. Generally, the questions were clearly understood; few queries were raised by staff. The most notable question was the meaning of 'conflate' from one of the staff (question 9); this was roughly explained as 'carry out at the same time'. Key words were selected and analysed to find the general trends that appeared from repetition of words and ideas. Any replies that were considered difficult to classify were analysed separately.

Questions 1 and 3 asked for a rough definition of first, summative, and then, formative assessment. Questions 2 and 4 asked for examples of summative and formative tasks respectively. Question 10 asked if summative and formative tasks are conflated, and question 16, how formative work is related to summative work. These questions were qualitative in that they required a written comment. Because of this, they required analysis and interpretation before quantifying.

Results

Rough definition of summative assessment

There was a general agreement of summative assessment: 80 per cent (40/47) mentioned the word 'end' or 'final'. 36 per cent (18/47) mentioned 'grade' (3 did not reply). One person replied 'determines career prospects': this focused on the consequences of summative assessment.

Examples of a summative assessment task

48 per cent (24/49) used the words or ideas of 'exam/test'. Twenty-six per cent (13/49) gave 'end essay/assignment' which are closely related to the first group. Therefore, 74 per cent saw a summative assessment task

reflecting the definition which mentioned 'end' or 'final'. Sixteen per cent (8/49) related this to formal and official exams. Therefore there was consistency in the examples over 86 per cent (46/49) of the responses (2 left this blank and 2 did not answer the question).

Rough definition of formative assessment

There was also a general consensus on the understanding of formative assessment. Eighty per cent (40/48) of lecturers mentioned 'developmental' and/or 'for learning' (2 did not reply). The definition of formative assessment also focuses on the etymological meaning. Only 28 per cent (14/48) mentioned 'feedback'.

Examples of a formative assessment task

Thirty-eight per cent (19/49) used the words or ideas of 'chatting, questioning, discussion, elicitation'. Twenty per cent (10/49) used 'essay, course work, homework'. Fourteen per cent (7/49) mention 'work, feedback' (half as many as used this idea in the definition). Ten per cent (5/49) of replies were left blank. Sixteen per cent (8/49) were difficult to classify and are as follows. The first states that 'Any task may be used formatively', but this does not state how it can be made formative by providing an example. The other seven examples describe an activity but this activity is not related to any of the characteristics which make it formative or were used to define it as formative.

An example if you conflate summative and formative tasks

Question 9 asks 'Do you conflate summative and formative tasks?' Question 10 asks 'If yes, give an example'. Only 55 per cent (27/49) answer 'yes' to question 9, and 48 per cent (24/50) reply to question 10.

How is formative work related to summative work?

Question 15 asks 'Is formative work related to summative work?' Ten per cent (5/48) replied 'no' (one was left blank), and therefore, a reply is not required from these (8 in total) for question 16, which asks, 'If yes, how is it related?' Thirty-four per cent (17/42) responded that formatively assessed work led to summative work. Forty-two per cent (21/42) noted that formative assessment formed components which build up and lead to summative assessment. Therefore, a total of 76 per cent (38/42) said that formative assessment leads to summative assessment. Three respondents did not answer the question.

Formative assessment tasks used with students

All lecturers used formative feedback, both for class work and homework (see Table 1).

Table 1 **Formative assessment tasks used with students**

Questions 5–9	*5. FA tasks used*	*6. In class*	*7. For homework*	*8. FA SA separate*	*9. FA and SA conflated*
Yes	100% (48/48)	86% (43/48)	78% (39/49)	38% (19/47)	54% (27/49)
No	0	10% (5/48)	20% (10/49)	46% (23/47)	38% (19/49)
Sometimes				10% (5/47)	6% (3/49)

Sometimes was not in the questionnaire, but it was added by staff

Information given to students on formative assessment tasks

As Table 2 shows, 70 per cent of lecturers inform students that the task is formative assessment and 64 per cent explain how it is formative. More lecturers mark the work (70%) than grade it (30%), and most of it is related to the summative assessment work (78%).

Table 2 **Information given to students on formative assessment tasks**

Questions 11–15	*11. Tell students task is Formative Assessment*	*12. Explain how task is Formative Assessment*	*13. Is FA work marked?*	*14. Is FA work graded?*	*15. Is FA work related to SA?*
Yes	70% (35/50)	64% (32/50)	70% (35/50)	30% (15/48)	78% (39/48)
No	30% (15/50)	36% (18/50)*	24% (12/50)	58% (29/48)	10% (5/48)
Sometimes			6% (3/50)	8% (4/48)	8% (4/48)

Sometimes was not in the question, but it was added by staff
* 5 chose 'neither' which equates to 'no'

Information on student self-assessment

Seventy per cent use student self-assessment with their students, as can be seen from Table 3. Fifty-eight per cent of lecturers believe that self-assessment is related to formative assessment. Twenty-eight per cent state that they present self-assessment as summative assessment; 60 per cent state that they do not. However, 30 per cent believe that self-assessment is both summative and formative assessment.

Table 3 **Information on student self-assessment (SSA)**

Questions 17–20	*17. Do students do SSA ?*	*18. Do you present SSA as Formative Assessment ?**	*19. Do you present SSA as Summative Assessment ?***	*20. Does SSA use both FA and SA ?*
Yes	70% (35/50)	58% (29/49)	28%% (14/46)	30% (15/49)
No	28% (14/50)	36% (18/49)	60% (30/46)	66% (33/49)
Sometimes	2% (1/50)	4% (2/49)	4% (2/46)	2% (1/49)

* 1 said 'Not applicable'
** 2 said 'Not applicable'

Is theory important to us as teachers?

Ninety-six per cent agreed that theory is important to us as teachers and 4 per cent said 'sometimes' (see Table 4).

Table 4 **Is theory important to us as teachers?**

Question 21	*Is theory important to us as teachers ?*
Yes	96% (48/50)
No	0
Sometimes	4% (2/50)

Summative and formative assessment used for end- or mid-course grades

The responses to the questions set out in Table 5 focus on the functions of assessment. Ninety-eight per cent agree that summative assessment can be used for end-course grades. Seventy-six per cent state summative assessment can be used for mid-course grades. However, 20 per cent state that summative assessment cannot be used for mid-course grades. 56 per cent agree formative assessment can be used for end-course grades, but 66 per cent that formative assessment can be used for mid course grades. Thirty per cent graded formative assessment tasks, 66 per cent say

Table 5 **Summative and formative assessment can be used for end- or mid-course grades**

Questions 22–25	*22. SA can be used for end of course grades*	*23. FA can be used for end of course grades*	*24. SA can be used for mid course grades*	*25. FA can be used for mid course grades*
Yes	98% (49/50)	56% (28/49)	76% (38/49)	66% (33/50)
No	2% (1/5)	40% (20/49)	20% (10/49)	32% (16/50)
Don't understand	0	2% (1/49)	2% (1/49)	2% (1/50)

formative assessment can be used for mid-course grades, and 56 per cent for end-course grades.

Summative and formative assessment assess product and/or process

As Table 6 shows, 90 per cent of lecturers see summative assessment as assessing a product more than assessing a process (58%). For formative assessment it is the opposite; 86 per cent see it as assessing process and 70 per cent as assessing the product.

Table 6 **Summative and formative assessment assess product and/or process**

Questions 26–29	*26. SA assesses product*	*27. SA assesses process*	*28. FA assesses product*	*29. FA assesses process*
Yes	90% (45/48)	58% (29/47)	70% (35/45)	86% (43/50)
No	0	30% (15/47)	14% (7/45)	10% (5/50)
Sometimes	6% (3/48)	6% (3/47)	6% (3/45)	4% (2/50)

Summative and formative assessment for validation (grading) or for learning

The responses to the questions set out in Table 7 focus on the functions of assessment. Eighty-four per cent use summative assessment for validation (grading) and only 48 per cent use formative assessment. Forty per cent would not use formative assessment for assignments for validation (grading). Eighty-two per cent state that summative assessment provides useful feedback (question 34). Also, 78 per cent state that summative assessment can be used for learning (question 31). Formative assessment is considered the predominant focus for learning (90%), although it is also high for summative assessment (78%).

Table 7 **Summative and formative assessment assess for validation (grading) or for learning**

Questions 30–33	*30. SA assesses for validation*	*31. SA assesses for learning*	*32. FA assesses for validation*	*33. FA assesses for learning*
Yes	84% (42/47)	78% (39/48)	48% (24/47)	90% (45/46)
No	4% (2/47)	12% (6/48)	40% (20/47)	0
Sometimes	6% (3/47)	6% (3/48)	6% (3/47)	2% (1/46)

Summative and formative assessment provide useful feedback

As Table 8 demonstrates, 82 per cent say summative assessment provides useful feedback and 96 per cent for formative assessment.

Table 8 **Summative and formative assessment provide useful feedback**

Questions 34–35	*34. SA provides useful feedback*	*35. FA provides useful feedback*
Yes	82% (41/50)	96% (48/50)
No	12% (6/50)	2% (1/50)
Sometimes	6% (3/50)	2% (1/50)

Summative and formative assessments are different or similar processes

As Table 9 shows, 68 per cent state 'summative and formative assessment are different processes'. Fifty per cent agree that they are similar processes.

Table 9 **Summative and formative assessment are different or similar processes**

Questions 36–37	*36. SA and FA are different processes*	*37. SA and FA are similar processes*
Yes	68% (34/48)	50% (25/46)
No	22% (11/48)	30% (15/46)
Sometimes	6% (3/48)	12% (6/46)

Sure/unsure how summative and formative assessment relate

Table 10 reveals that 80 per cent are sure of how summative and formative assessment relate to each other, 4 per cent are not sure as are the 16 per cent who do not reply.

Table 10 **Sure/unsure how summative and formative assessment relate**

Questions 38	*38. I am SURE/NOT SURE how summative and formative relate to each other.*
Sure	80% (40/42)
Not sure	4% (2/42)

Students understand/focus on summative and formative assessment

Table 11 shows that 74 per cent think students understand summative assessment while only 60 per cent think they understand formative assessment. 82 per cent thought students focused on summative assessment. Only 32 per cent thought students focused on formative assessment. Sixteen per cent of lecturers think students focus on both.

Table 11 **Students understand/focus on summative and formative assessment**

Questions 39–42	*39. Students understand SA*	*40. Students understand FA*	*41. Students focus on SA*	*42. Students focus on FA*
Yes	74% (37/50)	60% (30/50)	82% (42/49)	32% (16/49)
No	10% (5/50)	26% (13/50)	12% (6/49)	50% (25/49)
Sometimes	16% (8/50)	14% (7/50)	2% (1/49)	14% (7/49)

Discussion of results

Rough definition of summative assessment

It is interesting that the etymological meaning of 'final' and 'end' was foremost in the minds of the lecturers (80%). Although we might expect to link grades with summative assessment, only just over a third (36%) focused on this: perhaps because in the compulsory school context, much of in-class assessment is not necessarily graded, particularly in the primary sector.

Examples of a summative assessment task

The examples of external exams or assignments (86%) would normally require a grade. It is surprising that so few lecturers include the use of a grade (36%) in the definition of summative assessment. This would indicate an anomaly.

Rough definition of formative assessment

In the definition of formative assessment it is surprising that only 28 per cent mention 'feedback' as this is central to the definition (Sadler, 1989; Torrance and Pryor, 2001; Black et al., 2003). It is difficult to see how lecturers could envisage formative assessment being either developmental or for learning if feedback is not provided; this is another anomaly.

Examples of a formative assessment task

There are two types of processes discernable in the examples. The first, represented by 'chatting, questioning, discussion, elicitation' (38%) is in line with Black et al.'s (2003) central definition of formative assessment as being a classroom-based process which impacts on teaching: one reply mentions 'teaching strategy' explicitly. The second corresponds to Sadler's (1989) definition, which Black et al. (2003) also use intermittently for formative assessment, and is a product-based focus. Only 14 per cent use the idea of 'work, feedback' (half as many as used this idea in the definition). That such a small percentage of lecturers mention feedback in either the definition or examples of formative assessment is perhaps one of the most disturbing findings of the study.

Conflating summative and formative tasks

There was consistency across the replies which gave examples of tasks which conflate summative and formative assessment. Formative assessment was represented as parts, units or aspects of learning or feedback and this formative assessment contributes to the whole, which is summative assessment. These replies comprised 20 out of 24 of the responses. These replies all imply that formative assessment leads to summative assessment and that consequently formative assessment must precede summative assessment: this is a continuation of the trend found in the definition of formative assessment.

How is formative work related to summative work?

If we work with the etymological meaning as central to the definitions, then it could be argued that logically, developmental work will lead to summative work and not vice versa. It could be argued, rightly, as do two lecturers, that formative and summative assessment feed into each other and are cyclical. In this sense the formative assessment from the previous summative assessment can feed into the following summative assessment. The key question is whether formative or summative assessment is the starting point. Assessment requires a judgement before providing advice for improvement. Seventy-six per cent of lecturers have followed the framework of the relationship between summative and formative assessment as

promoted by Wiliam and Black (1996) and by Black et al. (2003), that is to say, that formative assessment leads to summative assessment.

Formative assessment tasks used with students

All lecturers used formative feedback, both for class work and homework. This indicates that they practise what they preach and set a good example to their student teachers by using it extensively themselves. Like Black et al.'s teachers (2003: 53), lecturers do not find it either necessary or logical to separate summative and formative assessment. However, the drawback with conflating summative and formative assessment tasks is that it excludes the possibility of using iterative feedback for learning from formative assessment tasks in order to improve summative assessment tasks.

Information given to students on formative assessment tasks

Seventy per cent of lecturers inform students that the task is formative assessment and 64 per cent explain how it is formative. More lecturers mark the work (70%) than grade it (30%), and most of it is related to the summative assessment work (78%). Marking and providing feedback without a grade has been shown to help students' learning (Black and Wiliam, 1998: 144; Taras, 2003: 561; Black et al., 2003: 42–9). This allows learners to focus on their work without the pressure and censure of the grade. Also, relating the formative assessment to the summative assessment work will permit an iterative cycle of feedback. Grading formative assessment work (30%) would eliminate much of the formative aspect if the grades are subsequently used (Black and Wiliam, 1998). Seventy per cent of lecturers mark and provide feedback on the formative assessment work. Since only 28 per cent mention feedback as being important to the definition of formative assessment, this seems to show a caveat in the definition. It also points to lecturers being more conversant with good practice than with producing accurate definitions.

Information on student self-assessment

A high percentage (70%) of the respondents use student self-assessment with their students. Fifty-eight per cent believe that self-assessment is related to formative assessment. This is in keeping with the work of Black et al. (2003: 7, 49), who classify self-assessment as a formative exercise. But this is in contradiction to the generally accepted theoretical frameworks of Sadler (1989 and 1998) and Scriven (1967), both of whom state that self-assessment is the student equivalent of summative assessment. Although self-assessment is often used as a formative

assessment exercise and requires students to provide themselves with feedback, self-assessment, per se, is equivalent to summative assessment. It requires the explicit step of providing feedback (and technically, using it, as stated by Sadler [1989]) for it to become formative assessment. Twenty-eight per cent state that they present self-assessment as summative assessment; 60 per cent state that they do not. However, this is confused by the fact that 30 per cent of lecturers believe that self-assessment is both summative and formative assessment. As these are defined as being so different, it is difficult to see how self-assessment can be both – unless academics are once again being misled by the literature which purports to differentiate summative and formative assessment only essentially by differences in function (Wiliam and Black, 1996; Torrance and Pryor, 1998; 2001; Black et al., 2003).

Is theory important to us as teachers?

Ninety-six per cent agreed that theory is important to us as teachers and 4 per cent said 'sometimes'. The response would seem to indicate that any shortfall in the number of answers to other questions is due to doubt. Black et al. (2003: 23) note teachers wanted updating on theory when they were asked to do something new by focusing on formative assessment.

Summative and formative assessment used for end- or mid-course grades

Ninety-eight per cent agree summative assessment can be used for end-course grades. Seventy-six per cent state summative assessment can be used for mid-course grades. However, 20 per cent state that summative assessment cannot be used for mid-course grades. This is a strange conclusion since it seems obvious that at any time a summation at that point is possible (Scriven, 1967). Fifty-six per cent agree formative assessment can be used for end-course grades, but 66 per cent that formative assessment can be used for mid-course grades. From this it seems the lecturers are not absolutely sure about what uses formative assessment can have in relation to grading, and also the role of summative assessment when it is not a 'final' summation, indicating doubt and confusion, which would be transferred to student teachers. Only 30 per cent graded formative assessment tasks, and yet here 66 per cent say formative assessment can be used for mid-course grades and 56 per cent for end-course grades. On the one hand, both figures seem very high when the definition provided initially does not mention grades, and on the other, it perhaps shows a conscious choice to carry out formative assessment and not use grades.

Summative and formative assessment assess product and/or process

Ninety per cent see summative assessment as assessing a product more than assessing a process. For formative assessment it is the opposite, 86 per cent see it as assessing process. This confirms the tendency that has been evident throughout the questionnaire, that is, to consider summative assessment as a final, product-based activity and formative assessment as an intermittent in-course activity which is process based. Confusing the process of assessment with the product is one of the most important problems and sources of misunderstanding. Both summative and formative assessment can assess either process or product.

Summative and formative assessment for validation (grading) or for learning

Eighty-four per cent use summative assessment for validation (grading) and only 48 per cent use formative assessment. Forty per cent would not use formative assessment for assignments for validation (grading). This is worrying because it implies that almost half of the lecturers (40%) would not consider using formative assessment if the assignments are required for grading, thus robbing students of feedback for learning, even if the assessment is for mid-course grades. Therefore, work for validation (grading) would seem to exclude the use of feedback for learning. This is a non-sequitur since 82 per cent of lecturers state that summative assessment provides useful feedback (question 34). Also, 78 per cent state that summative assessment can be used for learning (question 31). This contradicts the replies to question 25, where 66 per cent state that formative assessment can be used for mid-course grades. Formative assessment is considered the predominant focus for learning (90%), although it is also high for summative assessment (78%). Again, the clearest aspect is that summative assessment is a terminal activity for official purposes, but when dealing with aspects of the relationship between summative and formative assessment, opinions are much less clear.

Summative and formative assessment provide useful feedback

Eighty-two per cent say summative assessment provides useful feedback and 96 per cent for formative assessment. However, only 28 per cent of lecturers mentioned feedback in the definition of formative assessment (question 3).

Summative and formative assessments are different or similar processes

Sixty-eight per cent state 'summative and formative are different processes'. This follows the current frameworks of assessment which

require teachers to repeat and duplicate the assessment process if both summative and formative assessment are needed (Torrance, 1993; Wiliam and Black, 1996: 544; Wiliam, 2000: 1, 15–16; Black, 2003c: 1). Taras (2005) notes that the perceived necessity of duplicating assessment has been a potential problem to the development of formative assessment. Fifty per cent of respondents in this survey agree that summative and formative assessment are similar processes; however, similar does not mean the same and a weaker version of the above argument could still apply for these.

Sure/unsure how summative and formative assessment relate

Eighty per cent are sure of how summative and formative assessment relate to each other, 4 per cent are not sure as are the 16 per cent who do not reply. This goes to show that we do not always understand processes which we carry out every day and take for granted.

Students understand/focus on summative and formative assessment

These answers are perturbing since any shortfall from 100 per cent indicates that lecturers believe students are carrying out assessment which they do not understand. Seventy-four per cent think students understand summative assessment while only 60 per cent think they understand formative assessment. This raises three issues: one, lecturers believe students are working below capacity; two, students may take this lack of understanding to their own teaching; three, lecturers are not addressing these problems. Eighty-two per cent thought students focused on summative assessment. Only 32 per cent thought students focused on formative assessment. Unsurprisingly, most of the literature supports this view for education in general (Torrance, 1993; Sebatane, 1998; Wiliam and Black, 1998; Wiliam, 2000; Torrance and Pryor, 2001: 624; Black, 2003b; Black, 2003c; Black et al., 2003). Sixteen per cent of lecturers think students focus on both.

Conclusion

Since this was a small-scale study of just 50 lecturers in a single institution, we should keep in mind that the results cannot be used to generalize; however, they can serve to illuminate. Evaluation of the results has found that lecturers were not clear on their understanding of summative, formative and self-assessment, nor were they clear or consistent when reporting on the relationship between them. This will inevitably impact on their assessment of their students and transmit mixed and confusing messages when

discussing theoretical issues. The greatest confusion and contradiction exists in definition of terms and of how summative and formative assessment relate to each other in the assessment process (in questions 1–4, 5–9, 10, 16 and 36–7). The superficial and etymological meanings were the point of focus and not the distinguishing features. In terms of functions of assessment, used as the central distinguishing feature between summative and formative assessment by Wiliam and Black (1996), these are not clear in lecturers' minds either (questions 22–25 and 30–33).

In addition, feedback, which is the distinguishing feature of most definitions of formative assessment (Sadler, 1989; Black and Wiliam, 1998; Torrance and Pryor, 2001; Black et al., 2003), is not seen as such for most lecturers (see questions 3, 4, 11–15 and 34–5). Furthermore, contradictions surface in the relationship of summative and formative assessment to self-assessment (questions 22–25). Lecturers are not confident that students are clear on issues concerning summative and formative assessment: this is serious and may be due to the lack of certainty in their own minds. For an education community that wishes to support learning through formative assessment, the current frameworks of assessment are prohibitive as they require teachers to repeat and duplicate the assessment process if both summative and formative assessment are needed (Black, 2003c: 1; Torrance, 1993; Wiliam and Black, 1996: 544; Wiliam, 2000: 1, 15–16).

Pertinent to these results is one of Tight's conclusions concerning the importance of engaging with theory in higher education.

> I wouldn't wish to argue that all higher education researchers should engage to a much greater extent with theory, as there should be room for researchers and research of all kinds and at all levels. I do think, however, that there is a need for more theoretical engagement so that the field (or community of practice) can develop further, and gain more credibility and respect. (Tight, 2004: 409)

On the positive side, the data show extensive use of formative assessment by the tutors, mainly in the classroom but also a substantial amount in the form of homework (questions 5–9 and 11–15). This shows a clear focus on wishing to promote assessment to support learning. This is also evident since student self-assessment is relatively widespread and it is used more frequently as a formative assessment exercise than a summative assessment one.

This study has served to highlight some of the complexities and issues of assessment, particularly of summative and formative assessment. It also shows that much needs to be done to resolve misunderstandings and contradictions in the minds of university lecturers. For a group of lecturers who were 80 per cent sure that they understood the relationship between

summative and formative assessment, a closer analysis of their replies showed evidence that the reality was far less clear than their perceptions. Assessment is central to validation and accreditation, it has been found to be central to promoting student learning (Black and Wiliam, 1998) and it is critical to aligning and cementing learning and teaching. Added to the fact that assessment is probably the single most onerous and time-consuming task that lecturers normally perform, it is crucial that we get assessment right. This study indicates there is much to do.

Future research needs to ask how we can reconcile formative and summative assessment so that they are mutually supportive: examining the processes of assessment seems one possible means of doing this (Taras, 2005). Further future research could examine how we can reconcile processes with functions and how we can ring-fence functions so that the intended functions are carried forward to the *reality*. Leading directly from this study, it is clear that the understanding of assessment issues by lecturers could be explored more extensively and efficiently in further and larger studies. Another important and neglected aspect is learners' involvement and perceptions of assessment processes. Much work needs to be done. However, as individuals, we can examine and question our own understanding of assessment, of our own processes and the implications and impact for ourselves and our students.

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APPENDIX 1

QUESTIONNAIRE on Summative and Formative Assessment

Please circle YES – NO choice.

1. Give a rough definition of summative assessment.
2. Give an example of a summative assessment task.
3. Give a rough definition of formative assessment.
4. Give an example of a formative assessment task.
5. Do you use formative assessment tasks with your students? YES – NO
6. Do you use formative assessment tasks in class? YES – NO
7. Do you use formative assessment tasks for homework? YES – NO
8. Do you keep summative and formative tasks separate? YES – NO
9. Do you conflate summative and formative tasks? YES – NO
10. If yes, give an example.

If you use formative assessment with your students –

11. Do you tell them it will be a formative assessment? YES – NO
12. Do you explain **how** it will be a formative assessment? YES – NO
13. Is formative work marked? YES – NO
14. Is formative work graded? YES – NO
15. Is formative work related to summative work? YES – NO
16. If yes, how is it related?
17. Do your students carry out self-assessment? YES – NO
18. Do you present self-assessment as a formative exercise? YES – NO
19. Do you present self-assessment as a summative exercise? YES – NO
20. Does self-assessment use both summative and formative assessment? YES – NO

21. Is theory important to us as teachers? YES – NO
22. Summative assessment can be used for end of course grades. YES – NO
23. Formative assessment can be used for end of course grades. YES – NO
24. Summative assessment can be used for mid course grades. YES –NO
25. Formative assessment can be used for mid course grades. YES – NO
26. Summative – assesses product. YES – NO
27. Summative – assesses process. YES – NO
28. Formative – assesses product. YES – NO
29. Formative – assesses process. YES – NO
30. Summative – assesses for validation. YES – NO
31. Summative – assesses for learning. YES – NO
32. Formative – assesses for validation. YES – NO
33. Formative – assesses for learning. YES – NO
34. Summative provides useful feedback. YES – NO
35. Formative provides useful feedback. YES – NO
36. Summative and formative are different processes. YES – NO
37. Summative and formative are similar processes. YES – NO
38. I am SURE – NOT SURE how summative and formative relate to each other.
39. Students understand summative assessment. YES – NO
40. Students understand formative assessment. YES – NO
41. Students focus on summative assessment. YES – NO
42. Students focus on formative assessment. YES – NO
43. Without looking back, give a definition of summative assessment.
44. Without looking back, give a definition of formative assessment.

Thank you very much for your time and brain power.

Biographical note

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