Assessment for Learning? Thinking outside the (black) box

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Introduction

In England in the past few years, the phrase 'Assessment for Learning' has become

increasingly familiar to the classroom teacher, whether in secondary or primary school.

Black and Wiliam's (1998) pamphlet called *Inside the black box* has been one of the

most powerful vehicles for urging teachers, and policy makers, that Assessment for

Learning is beneficial for our students.

This present article explores and interprets what conceptions of Assessment for

Learning are held by different people, and groups of people. As a starting point, it

draws on a recently conducted survey of 83 teachers and headteachers as to their

conceptions of 'Assessment for Learning'. It links their various conceptions to some

models of Assessment for Learning (or formative assessment) in related literature. In

the article, I try to pull apart what assumptions about 'assessment' and, separately,

about 'learning' are implicit in these diverse conceptions of Assessment for Learning.

Having explored the range of conceptions that might be represented under the umbrella

of 'Assessment for Learning', as well as 'assessment' and 'learning', I then aim to

unpick the reasons why certain voices have become dominant, and so to encourage

thinking *outside the box:* that is, to think critically about which approaches to

assessment, learning and therefore Assessment *for* Learning we really value and want

to promote for young people.

Conceptions of Assessment for Learning

Drawing on my contacts with teachers and headteachers on various assessment projects, I invited 83 teachers and headteachers to take part in a survey of how different people understand the phrase 'Assessment for Learning'. Each person wrote down without conferring with others, what 'Assessment for Learning' meant to them. They submitted their responses anonymously.

Using my own previous experience of the range of meanings people might give to the phrase, I then grouped together definitions that seemed to have a common emphasis. The groups of definitions also reflected various emphases I had noticed in different types of education literature about Assessment for Learning (or formative assessment), from popular documents to critical academic texts.

These responses provide a basis for the discussion presented in this paper. Later in the paper, I also give some illustrative examples of Assessment for Learning from a selection of the 83 teachers' classrooms, which I visited during research projects. The groups of definitions are now described under six summary definitions. Quotations from teachers are presented in italics and indented.

The **first** group of definitions can be described as **Assessment for Learning meaning monitoring pupils' performance against targets or objectives**. For example, teachers wrote that Assessment for Learning described a process of the teacher

> *Setting targets based on initial assessment and providing learning experiences for children to meet targets*
>
> *Using learning objectives to increase student learning and improve performance related to external examination outcomes.*

Teachers mentioned

Continuous monitoring

Graded improvement

Seeing where we are at, ways to move on, goals to reach.

Although pupils do set their own targets in some primary and secondary classrooms (Gipps *et al*, 2000), the emphasis in these definitions seemed to be on the teacher doing the target-setting.

These conceptions of Assessment for Learning are also reflected in the definition of the Assessment Reform Group (2002):

Assessment for Learning is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there*.*

David Hargreaves (2001) of Qualifications and Curriculum Authority, seemed to be drawing on Sadler's (1989) writing about formative assessment when he defined Assessment for Learning as

… about teacher and student having

- A clear understanding of the desired standard that the student is seeking to reach

- A recognition of the gap between the student's current performance and the desired standard

- A readiness of either or both of them to adjust what they do to help the student to close the gap between current performance and the desired standard.

It is noticeable in that 'performance' rather than 'learning' is the word used.

In the **second** group of definitions of Assessment for Learning, **Assessment for Learning meant using assessment to inform next steps in teaching and learning.** This conception of Assessment for Learning seems to be related to the assumption of the first conception, that teachers and pupils need to be clear where learning is heading. Assessment for Learning then becomes the means of working out what *action* needs to be taken next. Among the 83 teachers, some teachers suggested this was the teacher's role, while others saw it as a shared job between teacher and pupils. Some conceptualised Assessment for Learning as a means to revealing remedial needs. One teacher mentioned teachers' assessment of what children have learnt

> *and how they learn best*

in this case focussing on learning processes rather than performance.

The conception mirrors that of Black and Wiliam (1998). They defined Assessment for Learning as

> … all those activities undertaken by teachers, *and by their students in assessing themselves,* which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged (p.2; original italics).

Shirley Clarke's definition of formative assessment (or Assessment for Learning) is similar to Black and Wiliam's: 'Assessment which engages with and helps define the appropriate next steps for the individual' (2001). Recently, David Miliband (2003), Minister for Education, has described Assessment for Learning as when 'Every teacher works with colleagues to assess pupils and deliver teaching to match'.

These next-step approaches to Assessment for Learning were also portrayed in the writing of Gipps, McCallum and Hargreaves (2000), who described the dominant model of formative assessment as

> … using assessment information to feed back into the teaching process, and to determine for individuals or groups whether to explain the task again, to give further practice on it, or move onto the next stage (p.6)'.

In this definition, Assessment for Learning is the teacher's rather than the pupil's job; however, these authors add that '… some observers believe that assessment is only truly formative if it involves the pupil'.

In a **third** group of definitions, **Assessment for Learning meant teachers giving feedback for improvement.** The teachers who defined Assessment for Learning in this way suggested a range of types of 'improvement' that feedback would promote: many described feedback as the means to

> *Move forward learning.*

Others, however, described its purpose as

> *To develop teaching and learning strategies for individual pupils*
>
> *To boost self-esteem, inspire, motivate*
>
> *To cause the learner to think*
>
> *To promote deeper learning and understanding.*

Some of these definitions seem to belong within a conception of Assessment for Learning in which taking next steps towards a given standard, is the main emphasis. The Assessment Reform Group (1999), for example, claims for feedback that it can lead '… to pupils recognising their next steps and how to take them' (p.7). Black and

Wiliam (1998, p.9) have argued that 'Feedback to any pupil should be about the particular qualities of his or her work, with advice on what he or she can do to improve…'

Similar emphasis is found in the writing of Weeden, Winter and Broadfoot (2002), who use the 'gap' metaphor explicitly, saying that 'The best feedback effects occur therefore when the gap between desired and achieved performance is clearly identified (p.109)'. It is notable that in all these examples, feedback is seen as a 'gift' from teacher to pupil, rather than an interaction between teacher and pupil or among pupils (Askew and Lodge, 2000, p.5).

A **fourth** group of definitions can be summarised as **Assessment for Learning meaning (teachers) learning about children's learning.** Conceptions of Assessment for Learning which focused on teachers learning about children's learning refer to a broad scope of such learning. Teachers described Assessment for Learning as

Looking at how children pick up ideas and how we can support them in this process

Discovering what learners comprehend and how they want to expand and excite this

Learning how children learn and preparing for learning

Seeing where the child is: how does the learner learn? How do they perceive learning? How are they motivated? Looking at the whole child.

These conceptions also relate to some teachers' conceptions of Assessment for Learning as

Teachers' reflection about their teaching and the impact it is having on learning.
In this model, the focus is still on improving future learning, but the emphasis is on the child's future learning processes rather than performances, that is, on *how* s/he learns rather than what s/he can *proove* s/he can do, knows or understands.   This emphasis on (often internal) processes rather than observable performances is reflected in the writing of Watkins (2001). He shows what to some seems paradoxical, that '… a focus on learning [processes] can enhance performance, whereas a focus on performance can depress performance (p.7).'

In a **fifth** group of definitions, **Assessment for Learning meant children taking some control of their own learning and assessment,** although what this looked like in practice was described variously. For some it meant

Children understanding the next steps in learning

The learner learning what he or she will need to do to improve for the summative assessment.

Others focused more on learning processes:

Children talking and reflecting on their own learning in order to develop and grow

Children having some element of control over how/what/why they are learning

The learner knowing how to get the knowledge/skill they want.

This latter stance makes the neat divide between Assessment *of* Learning and Assessment *for* Learning, less clear cut, since as children make an assessment *of* their own learning *processes*, this itself enhances their future learning.

Finally, several teachers referred to children self-assessing as essential to Assessment for Learning. Within the 'next-steps' model, the importance of self-assessment is stressed by Black and Wiliam (1998) who wrote that

> … the link of formative assessment to self-assessment is not an accident – it is indeed inevitable… pupils can only assess themselves when they have a sufficiently clear picture of the targets that their learning is meant to attain (pp.9-10).

To reflect the emphasis on learning processes, Torrance and Pryor (1998) have suggested that formative assessment '… must inevitably involve pupils reflecting on what they have achieved and how they have achieved it (p. 8)'. This position is also expressed by Watkins et al (2002, p.1) who explain how for learning to take place, 'Whatever the overall time scale, time is required for individuals to reflect, make meaning, and [so] move forward'.

In the final and **sixth** group of definitions, **Assessment for Learning was defined as turning assessment into a learning event.** A few teachers simply wrote that Assessment for Learning meant

Turning assessment into a learning event.

This vision of Assessment for Learning is most clearly explicated by Dann (2002) who defines Assessment for Learning as

> Assessment [which] is not merely an adjunct to teaching and learning but offers a process through which pupil involvement in assessment can feature as part of learning – that is, assessment as learning (p. 153).

Conceptions of assessment implicit in these definitions of Assessment for Learning

Now that I have interpreted some written definitions of Assessment for Learning (or formative assessment), it is useful to penetrate deeper and look for implicit conceptions of assessment and learning within them. It is these implicit conceptions that are most likely to determine what kind of assessment and learning actually happens in classrooms.

Within my interpretations of Assessment for Learning described above, two distinct meanings for assessment can be extrapolated: assessment as measurement, and assessment as inquiry.

In the first evident meaning of assessment, where **assessment is equated with measurement**, measurement refers to the act or process of determining or estimating the amount, extent or level of a student's 'learning', often using tests as the means of doing so. Nitko (1995) has stressed that *reporting* is an essential aspect of measuring, which is why measurement allows for comparisons among students and for standardisations.

Marking, checking, identifying, showing a level, monitoring: these were all verbs used by the 83 teachers as they described assessment in Assessment for Learning, within this measurement paradigm. Assessment in this paradigm is most likely to be carried out by the teacher for the pupil, although pupils might measure themselves or each other with reference to a marking key or predetermined set of criteria.

In this model, feedback is based on data reported (probably) by the teacher about a pupil's current achievement, and the assumption is that the measurement data are

complete and valid and remain so outside the measurement situation. In this paradigm, assessment is seen as something external to and unaffected by the assessor. As Dann (2002) notes of assessment in the measurement paradigm,

> Any instrument of assessment used needs to be clearly focused yielding data which is assumed to require minimal interpretation. Consequently, results will be considered objective and context free, available and accessible to a variety of possible audiences (p.39).

A distinction can be made between measurement and testing, in that tests are the instruments by which measurements are made. There are other methods of producing data that can be summarised in terms of quantity, extent or level. Data collection methods may extend beyond tests to, for example, observation, informal chat, self-assessment or portfolio collection. However, if the belief is that ultimately the data can be used to report the amount, extent or level of a student's 'learning', then in terms of beliefs about knowledge, these assessments belong within the measurement paradigm. An example of assessment as measurement (for Learning), is in Jill's classroom (one of the 83 teachers' classrooms). Jill listens to pupils reading a set text, makes a judgement about each pupil's reading level, and provides books at that level for the pupil to read. She also places children in seating arrangements, accordingly. The assumption here is that because Jill knows the pupil's level, she can provide appropriate learning stimuli for the pupil, which will help the pupil improve.

In the second meaning of assessment that was evident in the 83 teachers' definitions, **assessment was equated with inquiry**. Inquiry means making a search or investigation. For many definitions in our sample, the concept of inquiry seemed key to

assessment: verbs teachers used included *reflecting, reviewing, finding out, discovering, diagnosing, learning about, examining, looking at, engaging with, understanding*. All of these suggest an exploratory and sensitive venture, with no clear end-points except a heightened awareness of current developments. Within this paradigm the purpose of the assessments is a deeper understanding of individuals as learners, not just performers. Assessment is viewed as part of the learning process, not as separate from it. It is not the techniques of assessing that are different from in the measurement paradigm, but the beliefs about how the required knowledge comes about. In this model, the emphasis is not only on what or who is being assessed, but also on the assessor, the inquirer.   Serafini (2001, p.387) has written:

> Using assessment as inquiry, teachers are no longer simply test administrators.
> Rather, teachers and students are viewed as active creators of knowledge rather
> than as passive recipients (Wells, 1984) ... [Assessment is seen as] … a human
> interaction involving the human as the primary assessment instrument (Johnston,
> 1997).

An example of this paradigm of assessment includes Nadia's classroom (another from among the 83 teachers' classrooms), in which students are encouraged to investigate their learning processes during the day. Then they are given 30 minutes to describe their reflections in Learning Journals, which can remain private to the students if they wish.   Students' comments have included:

> *Learning, I think, is all about experiencing new things and exploring new topics*
> *I find learning is life. I don't think learning is just about school. You learn*
> *everywhere you go*

> *I think you know when you've learnt something because you can explain it to someone else.*

Later in the term they search through the journal and comment on their own learning journeys.

In a primary classroom, Remy (another respondent) invited all the children to draw a picture of where they felt most comfortable learning. Afterwards the children explained to their peers what it was about this special place that helped them learn. Children drew their bedrooms, the park, the classroom, and one child drew a recent trip to the Philippines. In these examples, the inquiry takes the form of self-inquiry or reflection. Another example is offered by Malina, who introduced Assessment for Learning into her (secondary) school. She and some staff met together each Monday evening simply to talk about learning and soon the meetings became the high point of these teachers' work lives. One result was that they began to talk to students, inquiring about what helped or hindered their learning, and then the teachers took action in the classroom according to the pupils' suggestions.

In Ben's class, at the end of a project on the Romans, the pupils drew a concept map of everything they had learnt about the Romans. They then compared this with the one they made on the day they started learning about the Romans. Their challenge was to investigate for themselves what had allowed them to move from their first to their second position in relation to the Romans. Some responses included: making models, looking through books, doing role play, listening to the teacher and to each other, asking questions and making posters on specialist areas.

Conceptions of learning implicit in these definitions of Assessment for Learning

From our sample of 83 teachers' definitions of Assessment for Learning, as well as from the literature referred to, I interpreted two main categories for conceptions of learning: learning as attaining objectives; and learning as constructing (or co-constructing) knowledge.

The **first conception, of learning as attaining objectives**, was most clearly evident in teachers' and writers' view of Assessment for Learning as *the monitoring of pupils' performance against targets or objectives*; as *the use of assessment to inform about next steps for learning and teaching;* and to a lesser degree in the view of Assessment for Learning as *teachers giving feedback for improvement* and *children taking some control of their own learning and assessment.*

The much used metaphor among the teachers and writers, 'next steps' in learning, suggested a picture of learning as a hierarchy of attainment that pupils work their way up. Some children stumble on some steps and need extra help to keep up, and each step represents a target or standard to be reached. Achievements on this journey are observable as pupils *perform* tasks to show that they have acquired the skills, knowledge or understanding prescribed for each step. Such a conception of learning is implicit in the National Curriculum and its assessments in England, neatly laid out in ascending levels.

A similar conceptualisation was of learning as a linear track for children as they 'move forward' in their learning. In both cases, 'closing the gap' metaphors implied a view that the learning journey lies ahead of learners in predictable, observable and measurable stretches, and the learner's job is to know which stretch to embark on next and how to reach the end of the stretch successfully.

Such a model of learning lends itself easily to assessment as measurement. The attainment of objectives can be measured, if

> Tests are designed to objectively measure the amount of knowledge that a student has acquired… knowledge is believed to exist separately from the learner, and students work to acquire it, not construct it… Learning is viewed as the transmission of knowledge from teacher to student… (Serafini, 2001, p.385).

In this model, therefore, we would expect to find the teacher assuming most of the control, and we would expect an emphasis on performances rather than learning processes, because performances are observable (and so ultimately measurable) by the teacher.

The **second conception of learning, meaning the construction of knowledge** was reflected particularly in conceptions of Assessment for Learning as meaning *(teachers) learning about children's learning; children taking some control of their own learning and assessment;* and to some extent in the view of Assessment for Learning as meaning *turning assessment into a learning event* and as *teachers giving feedback for improvement.* For example, teachers talked about children *picking up ideas, thinking, comprehending.* They described learning as a *process of development*, that applied to all areas of life and the whole child. They conceptualised it is as *empowerment*, and suggested that it involved the whole learner, including her motivation, self-esteem and individual ways of doing things.

Learning as knowledge construction implies individuals actively making sense of their world, making connections between how they already see things in light of new experiences. In this model, knowledge is not 'out there' waiting to be discovered, but

constructed through each learner struggling to make sense of her own experiences. The learner has agency, in contrast to the previous model in which the learner is a mover in a more pre-ordained sequence. As Askew and Lodge (2000) write:

> In the constructivist model [of learning], it is accepted that young people have different intelligence levels and different talents, interests and skills. It assumes that young people are rational decision-makers, can be self-directed and learn autonomously (p.9).

An extension of this model of learning is the *co*-construction of knowledge in which learning is the process of learners collaboratively building knowledge as members of the whole knowledge-constructing community. In talking about this model

> … the terms that imply the existence of some permanent entities [of knowledge] have been replaced with the noun 'knowing', which indicates action… the permanence of *having* [knowledge] gives way to the constant flux of *doing…* learning a subject is now conceived of as a process of becoming a member of a certain community (Sfard, p.6, original italics).

From this perspective, individual knowledge is useful in so far as it contributes to the transformation of the whole community.

Assessment *of and for* learning from this perspective, is likely to be aligned with the model of assessment as inquiry: in the more individual construction sense, it involves teachers or pupils making inquiries, or investigating, in order to relate new knowledge to previous knowledge and others' knowledge, while in the co-construction sense it means pupils or teachers investigating their own and others' impact on the knowledge-constructing community as a whole.

In this model of learning, therefore, we would expect to find the pupils assuming much of the control, and an emphasis on learning processes rather than performances, since learners themselves can become aware of their learning processes without needing the teacher to observe proof of them.

One example of assessment underpinned by a co-constructivist approach to learning was provided by Mia, one research respondent. In Mia's class, a group of 'peer observers' take it in turns to observe the learning processes of the rest of the class and then to report back and comment on their findings to the whole class. In this assessment process, the observers have several chances to learn about their peers' learning, and through the experience, they make observations about their own learning too.

The dominance of the measurement paradigm of assessment and the objectives conception of learning

The 83 research respondents' comments illustrate the range of people's implicit conceptions of assessment, learning and Assessment for Learning as I have interpreted them. However, the survey provides plenty of examples of teachers' holding the measurement/objectives model of assessment/learning, as does the literature. My own experiences with teachers and pupils also support the idea that the measurement/objectives model has a dominant influence in schools in this country, at this time, and that teachers sometimes believe it is the *correct model*, even if their own beliefs do not square with it. The following paragraphs try to explain why this might be, with reference to recent political history.

The dominance of the measurement/objectives model is understandable in light of the fact that the National Curriculum, which is statutory in English state schools, conforms to an objectives model of learning. Although its programmes of study exemplify other approaches to learning, the hierarchical structure and the emphasis on Level Descriptions (ie objectives) in the curriculum lend it an objectives-led flavour to learning although this model is never made explicit (Dann, 2001).

In addition, the National Curriculum's introduction in 1988 was accompanied by the introduction of National Assessments through which pupils' attainment of the Curriculum objectives was measured. As Shepard (2000) has noted, an objectives-led model of learning, demands precise standards of measurement to ensure that each skill is acquired at the desired level, and the 'objective' test has developed as the ideal assessment tool. Shepard showed how even teachers who held more constructivist approaches to learning may adhere to the 'objective' test (measurement) as real assessment. She commented that teachers she worked with

> … worried often about the subjectivity involved in making more holistic
> evaluations of student work and preferred formula-based methods, such as
> counting miscues, because these techniques were more 'impartial' (p.6).

It is not surprising then, that many of us in England are more immersed in an objectives model of learning than in one of constructing or co-constructing our own knowledge; and that we are more comfortable with a measurement paradigm of assessment than with an inquiry paradigm.

Dann (2002) has noted how the National Curriculum came to be dominated by an objectives model of learning (and consequently a measurement paradigm of

assessment) partly as a result of the rise of Taylorism within industry in the social

efficiency movement of the early twentieth century. This provided a model that linked

behaviour and performance, which had a great influence on education: by carefully

regulating input, identified outcomes could be created in the most effective way (p.11).

Coupled with the objectives model was the development of behaviourism in psychology,

which was is also influential. Within behaviourism, the teacher's role is to arrange

stimuli which result in changed student behaviour (Skinner, 1969). Individual

differences are accorded little attention and the idea of the active mind is seen as a

hindrance (Watkins, 2003). As Dann puts it:

> Children are expected to demonstrate the objectives identified. They have no
>
> scope to shape, negotiate or deviate from these objectives. Together these
>
> theories underpin the role of the individual pupil as a mechanical agent who will
>
> react to the contexts and information given to him/her (Dann, 2002, pp.12-13).

The possibility of introducing a curriculum and assessments that everyone was required

to use – whatever their underlying beliefs about learning and assessment - may also be

seen as the culmination of tensions between the left and right wing political forces in

English society, both of whom were critical of the liberal post-war consensus in

education. For the right, the National Curriculum kept at bay 'liberal'-progressives who

were believed to want the child at the heart of education and wanted the child to '… look

critically at the society of which he [sic] forms a part' (Plowden Report, 1967, Vol 1,

p.188 quoted in Dann, 2002, p.21). The new curriculum demanded conformity and

standardisation in 'learning'; and it also promised a 'free' market for parents, via League

Tables of test results. For the left, liberal education legitimised class inequality and the

'failure' in school, of a significant minority of pupils (Galloway et al, 1994). Thus the Thatcherite government was able to implement the National Curriculum in 1988 with support from left and right, justifying it with reference to competing nations who were doing better than England economically and on test results (though not necessarily better in learning).

Thinking outside the (black) box: Assessment for Learning and the future

In the analysis presented above, the picture is one in which competing conceptions of assessment, learning and Assessment for Learning are still alive, despite a National Curriculum, with assessments, that promotes a dominant version of what learning and assessment mean. With an objectives-led curriculum, other discourses of learning might have been squeezed into the background; in this measurement-driven assessment policy, other ways of conceptualising assessment might have become repressed. One of my intentions in writing this paper was to illustrate that people do still hold a range of conceptions. I also suggest that the dominant conception is dominant for specific historical reasons rather than because it makes most sense or is best for the young people in our schools.

Another of my intentions in writing this paper was to encourage thinking *outside the box:* that is, to think critically about which approaches to assessment, learning and therefore Assessment *for* Learning, really satisfy our personal, professional, long-term and holistic purposes for young people's education. *Inside the black box* (Black and Wiliam, 1998) has been an extremely useful means to raising awareness that the input-output industrial model is too simple for our classrooms: that what happens inside the black box of the classroom makes a difference. However, the testimonies on which this

paper is based suggest that we need to think right outside the box in relation to models of assessment and learning, and therefore models of Assessment for Learning, and to recognise that the black box reflects one particular version. The black box represents the version characterised primarily by a measurement/objectives conception of assessment and learning.

I also suggest that the duality 'summative/formative' or '*of* learning/*for* learning' may not be the opposite poles of assessment, even though contrasting these two has provided a dominant platform for debate recently. I suggest that a more important distinction for future policy and practice, views the two ends of the spectrum as follows: a conception of knowledge as external to the learner and fixed - at one extreme; and a conception of knowledge as constructed or co-constructed by the learner/s and as fluid - at the other extreme. It is the view of knowledge held by those who have power in education that is likely to determine what sort of assessment and learning happen, to determine the purpose of assessments, *what* actually comes to be assessed and therefore the quality of the student's learning processes and products.

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