

6 What matters in growing formative assessment?

Summary of key findings

In this section we draw together the issues arising from our investigation into what matters in growing formative assessment from research, from EA co-ordinators and from practitioners involved in the initial phase of AifL. We consider the relationship between ideas from research and what EA co-ordinators, headteachers and teachers said about real and meaningful change. Finally we identify a number of particular challenges for the future of formative assessment in AifL arising from the interviews.

6.1 Is formative assessment worth growing?

There appears to be strong evidence emerging from the findings reported in sections 3, 4 and 5 in this study to support previous evaluation evidence (Hallam et al. 2004, Condie et al, 2005) that teachers, headteachers and Education Authority co-ordinators are strongly convinced that the formative assessment project was highly effective..

Teachers suggested that their involvement in AifL had had a significant impact on their own teaching approaches and understanding and confidence as teachers. They identified a number of important aspects of this change, eg,

- An increased focus on learning and the learners' ways of going about their work, rather than on teaching or curriculum coverage.
- An enhanced awareness of the importance of checking for understanding as a consistent feature of teaching; and the development of new strategies to realise this aspiration.
- An increased concern to develop pupils' independence as learners; and the relaxation of tight teacher control of activities.
- The development of new strategies for promoting pupils' thinking in various ways.

Teachers also indicated that the use of formative assessment in their classrooms had had a significant impact on pupils' self-esteem, engagement with work and attainment (there were particular examples of notable improvement of low achievers' performance as measured by national tests).

EA coordinators also believed that formative assessment had had real impact on schools. All EA representatives regarded the formative assessment project as an extremely valuable initiative.

Several identified increases in attainment, pupils' self-esteem, quality of learning experiences and levels of enthusiasm among teachers. They confidently expected teachers to maintain these changes. They identified similar changes in teachers' practices as had been identified by teachers and headteachers. They perceived that teachers involved in the formative assessment project had demonstrated an increased awareness of learning, of the importance of sharing learning aims and success criteria, of promoting a climate of success for all. They had witnessed improved relationships in classrooms and more encouragement of pupils' independent learning. They believed that good formative assessment was improving learning and teaching in fundamental ways.

6.2 What we are learning about growing AifL?

Research on assessment (Black and Wiliam, 1998, Black et al, 2002) and on the process of change (Senge and Scharmer, 2001, Fullan, 2003) suggests that innovation that leads to real and meaningful change has three central features. These are not simple ideas, for they must exist within an initiative that has to deal with the complexities of both political and professional demands. The formative assessment project within the Assessment is for Learning Programme was designed and supported in ways that sought to embed all three features. The analysis that follows incorporates the key outcomes of the interviews with school and EA staff. A fuller summary of their views can be found in Appendix C.

The integrity of the change

Effective change happens when people believe that what they are doing matters in their world and that they are not simply responding to what someone else has identified as important. This kind of personal and professional commitment is important for all those involved, whether they are politicians, policy-makers, researchers, curriculum developers, teachers, pupils or parents. It creates a shared recognition that change is desirable and needed. Honesty and openness about the process of change also appear to be important features, so that problems are identified and tackled rather than ignored or covered up.

The evidence from this study shows clearly that the integrity of formative assessment was one of the central features that led teachers and EA staff to commit themselves so deeply to the project. Teachers spoke very positively of its direct focus on pupils' learning and its effectiveness in improving it. It was clear that the positive feedback teachers got from pupils' reactions and the improved quality of classwork when they used formative assessment led to increased confidence in their teaching and increased commitment to the approaches. EA also staff highlighted the direct educational value of formative assessment. Both groups also emphasised the fact that formative assessment was clearly valued and promoted at all levels in the education system – school, EA, and national policy levels and also that it was supported by evidence from high quality research.

There was, therefore, a need perceived across several of the main communities for a real change in the way assessment contributed to learning and teaching. HMIE had identified the need and the consultation on Assessment in 2000, which had included policy and practice communities, had reinforced this view. There was strong research evidence to indicate that teachers and pupils who have experienced effective formative assessment in action recognise how desirable the change is (Black & Wiliam, 1998).

The emphasis in the AifL Programme on assessment to support learning was consistent with the values of teachers in particular and the educational community in Scotland more generally, according to the 2000 consultation (Hayward et al).

Although education authority personnel were aware of the historical trajectory leading to the AifL initiative, we do not know whether the individual teachers who took part in the project had been aware in advance of the consistency of formative assessment with values expressed in that consultation or not. It was clear, however, that they became strongly convinced that formative assessment was consistent with their personal professional values when they saw its powerful impact on their pupils' engagement, commitment and progress.

Building informed communities

The evidence from this investigation, and from other research, suggests that there are a number of key factors in building informed communities that have a positive impact on learning. However, the concept of building informed communities is a complicated one, involving two sets of inter-related ideas. One set of ideas relates to development of individual teachers' and groups' understanding of the nature and value of formative assessment. The other has to do with interaction within and across groups, to develop and sustain changes.

In respect of formative assessment, informed communities have a deep understanding of what matters in making assessment work to enhance learning. This requires both understanding of ideas about learning and how assessment can support it and the ability to put them into practice in different contexts.. The formative assessment strategies used by so many of the teachers in this study were designed to increase learners' engagement, to raise their awareness of why, what and how they were learning, ie, to encourage them to think. The evidence from this investigation suggests that people took different routes to an understanding of how this came about.

Some teachers were enthused by the credibility of practitioners from the KMOFAP project, were encouraged to try out practical ideas in their own classrooms and became convinced of their efficacy by their impact on the young people's learning and behaviour. Reflection on these experiences led these teachers to understand more deeply ideas from research on assessment and learning. Other teachers found inspiration from speakers, such as Dylan Wiliam. They talked through ideas with colleagues - teachers, headteachers, development officers or researchers - and then tried strategies out in practice. Another group recognised as familiar many of the ideas being raised at the project meetings and returned to their classrooms with renewed enthusiasm in their own professionalism as the base for effective formative assessment. The building of informed teaching communities appeared complex in some ways, in that different approaches worked for different people. Yet it was also simple in another sense: whatever the stimulus, almost all teachers began with small practical steps in their own classrooms, developing from their existing practice, building their own confidence.

There were common themes in teachers' descriptions of their experiences, identifying factors that encouraged positive action.

- a stimulus to engage, either through listening to practitioners or to researchers, that connected with their own ideas about what matters in learning
- practical suggestions about how to try out formative assessment, often allowing existing practice to be adapted
- opportunities to talk through ideas with others

- a sense of being listened to, of being important
- early success in seeing a positive difference in children's learning
- involvement in a practical, local development that gave a sense of contributing to a bigger endeavour
- a perception of consistency of purpose across communities, eg, individual, school, EA, HMIE, SEED. (This idea is explored in greater detail in later in this section.)

Individual commitment, then often appears to come from developing practical action based on key ideas and experiencing its impact. However, for any change to become embedded and sustained more broadly within the system, another set of ideas begins to play a crucial role. A critical mass of people must become committed to the key ideas and to the associated changes in practice. It appears that this critical mass is needed in each of the communities relevant to a development, typically, in education, pupils, teachers, school managers, associated schools groups, parents, local and national policy makers, researchers. Any of these communities can work for or against an innovation, depending on the extent to which they believe it to be worthwhile and the extent to which they feel part of it. There may be tensions here between traditional models of innovation, where communities have been involved in the process of change on a representative basis, and ideas of critical mass. Mere representation of staff in key decision-making processes may introduce a risk to successful change. Those who are the representatives feel part of the process but those whom they represent may feel alienated and more likely to try to attack or subtly to subvert the programme. Ultimately, people have to feel trusted with sufficient responsibility for the change process to make them feel committed to its success. Change is both an individual and a collective process (Senge et al, 2004). A crucial need, therefore, is to ensure that approaches to growing a development such as formative assessment do engage members of all the relevant communities, individually and collectively. The issues raised here may continue to be significant as the programme grows. It will be important to learn from what mattered to teachers, schools and EAs involved in the initial phase and work with new participants in AifL retaining key features of the model: essentially listening and learning with each new group.

Communities are not only important as groups of people with shared interests but in their inter-relationships. For example, changes in classroom practice are more likely to occur if supported by people of influence within the school, e.g., the headteacher, and outwith the school, e.g., HMIE or parents. Differences across influential communities, real or perceived, put change at risk. As in an old fashioned watch, it takes the movement of all the wheels to make the watch work. It only takes one wheel to jam for the system to stop. The AifL project was firmly based on the idea that only effective collaboration among the several communities concerned with formative assessment could make it work well and grow across both schools and the broader system. Its initiators perceived that effective change could not be imposed. They recognised, for instance, that the research evidence tells us much about what qualifies as effective learning, but not a great deal about how to ensure that all the relevant factors come into play in real classrooms. The reflection and collaboration of teachers were necessary adjuncts to the research evidence, if the project was to be successful.

The significance of collaboration within and among the communities concerned with formative assessment emerged very clearly from the views of participants in the evaluation exercise.

Teachers identified the feeling of being supported, of being part of a development team and of being able to discuss what you have tried out with others as crucial to their willingness to develop formative assessment and their growing confidence with it. They also praised practical guidance and modelling from other teachers (in the same school or from elsewhere) on introducing new practices. Opportunities for planning/networking/discussion with colleagues, sometimes paid for by the SEED grant of funds, were frequently mentioned as key success factors. However, there were also indications that teachers had not always benefited as much as they would have wished from circumstances in the project where they interacted with colleagues who were not familiar with their educational sector or curriculum area. Although the cross-curricular and cross-sector relevance of formative assessment was widely recognised, there was some desire to be able to reflect and develop approaches with fellow subject teachers or colleagues familiar with one's own primary or secondary sector.

Another kind of collaboration within schools was also highlighted as important by teachers. They recognised the need for effective management of the conditions to promote formative assessment: including committed leadership; effective resourcing; organisation of time; reassurance in respect of worries about formative assessment not being regarded as valuable accountability activity; and development of agreed departmental or stage approaches to it. They also welcomed the fact that school managers had appreciated the importance of recognising and addressing problems arising as the project developed.

In respect of involvement of people beyond the school community, the significance of the roles of various groups interacting with school staff was apparent. The importance of the fact that formative assessment was clearly valued and promoted throughout the education system has already been highlighted – valued by the school, the EA, national policy and the research community. As indicated earlier in this section, teachers spoke very positively of the stimulating effect on their thinking of contributions from distinguished researchers, such as Dylan Wiliam, and of the explanations and modelling of practical approaches provided by teachers, e.g., from schools in the KMOFAP project in England (Black et al, 2004), who came to the national gatherings of schools involved in the Scottish project. They saw similar future roles for experienced staff in developing school and local cluster communities of teachers committed to formative assessment. They suggested, for instance, that formative assessment could be developed not only by the same teacher embedding it in his/her own continuing work and other classes but also by getting teachers to work in one another's classrooms or consider video material and share ideas about practice. Other suggestions were for volunteers to be invited to join a group of staff already using formative assessment and for shared approaches in departments or stages in primary schools or across schools in a cluster – e.g., consistent sharing of learning intentions, ways of assessing, responses to homework...

EA staff were also conscious of the importance of action that would enable teachers to develop formative assessment in school communities and to interact in so doing with

support staff from the authority and/or from universities or SEED. They highlighted EA action on staff development as a key future need. They also spoke of the need to engage whole school, EA and national communities in formal action to promote formative assessment. Such action, proposed or already taken, included planning for growth in formative assessment at the level of the EA service plan and, therefore, in school development planning. It also included placing formative assessment at the centre of school policies on learning and teaching and linkage its growth to quality assurance systems at school, EA and national/HMIE levels. EA staff were convinced of the importance of consistent support and commitment from headteachers, EAs and the whole system. They argued for effective combination of factors: practical support (educational and financial) from policy makers, at national and EA levels; research evidence; and real, practical involvement of teachers.

One important advantage of the active involvement of all the communities in developing formative assessment is that it allows ideas to be seen from different perspectives and it provides a forum for difficult issues to be tackled. These might include, for example, in the future development of the AifL Programme, personal learning planning and the tensions between assessment for learning and assessment for wider purposes of qualification or accountability. Other kinds of advantage accrue from the engagement of the university community in collaboration to develop formative assessment. It allows them to highlight its significance in Initial Teacher Education and Continuing Professional Development programmes, helping to build a critical mass of people committed to the principles and familiar with formative assessment practices. It also allows for the collection of evidence to inform action related to risks, as they emerge for the developing programme.

Real involvement

A third major feature of successful innovation is the real involvement of people as the process develops. For this involvement to be meaningful it has to be from the earliest stages of the process and it has to be real, i.e., more than just trying to use ideas created by others, without making them one's own. Real involvement means undertaking collaborative ventures that focus on key principles and that create purposeful projects to develop understanding of and practical application of those principles. If projects are artificial or if their focus is perceived to be not concerned with key principles, then disenchantment and cynicism set in. On the other hand real involvement helps to deepen the sense of shared purpose and supports the growing communities.

Some aspects of the formative assessment project that encouraged real, committed involvement of teachers have already been indicated. Though only a few of the teachers who participated in the project were volunteers and many did not know why their education authority had originally nominated them, the strong commitment and desire to help pupils' learning which arose from actually trying out formative assessment and recognising its value were very apparent. A key factor mentioned by both teachers and EA staff was that teachers had autonomy in trying out, discussing and adapting approaches. They were trusted to develop their own ways of stimulating and responding to pupils thinking and learning, with support. Many teachers in the project thus came to realise that formative assessment was built on their own familiar professionalism.

One issue related to real involvement and trusting teachers to develop their own professionalism arose in respect of their initial engagement in the project. The project sought to encourage teachers' own thinking through exposure to ideas and practical action taken by others, e.g., in the KMOFAP programme. It did not, however, in any sense provide a pre-determined package for teachers to implement. In the early days it became clear that many of the teachers believed that this approach was an elaborate charade and that in time they would be told what to do. Indeed, some tested the integrity of the approach and asked for answers. The collaborative support model did in fact enable the teachers to adapt what they learned from others to their own contexts and their own styles of teaching. They responded to the trust placed in them and the evaluation data suggest that there have been significant changes in practice as a result. This non-directive model, with support and opportunities to reflect for oneself and in collaboration with others, was effective. Nevertheless, some teachers did suggest in the interviews that, even within such a model, the aims of their involvement in the formative assessment project should have been clearer at the start. Policy makers and researchers involved in the early days of the programme might well point to sessions where aims were made explicit but the feedback from teachers suggested that they made connections at different points in the process. It may be helpful in future developments to explore alternative ways of promoting greater awareness amongst all participants of the aims of formative assessment, without hindering their thinking to develop their own approaches in collaboration with colleagues.

One other factor relating to real involvement is worthy of comment. Both teachers and EA staff recognised the value of the experience of pioneers from the initial project in growing formative assessment within a school and across a group of schools or an education authority. Just as those initially involved had been convinced by credible, teachers who were using formative assessment in real classrooms, pioneers had already been able to help colleagues to see the value of their approaches and to become engaged themselves in working out their own adaptations of them. However, headteachers of some pioneers were concerned about too much staff development pressure on their teachers and some pioneers themselves were aware of difficulties that can occur. They recognised that the growth task was large and that at some staff development events they had been speaking to uncomprehending, very tentative, sceptical or even cynical staff from other schools. Some teachers felt a concern that they were being perceived by their colleagues as AifL experts, who could tell others what to do. They felt that there was a clear but sometimes difficult line to be drawn between sharing experience and providing a model for others. It does seem to be important to enable teachers to learn about formative assessment from credible colleagues – but in circumstances where this is really possible, that is, where every teacher involved has to think about their own practice and avoiding situations where uncommitted or cynical staff can remain unengaged.

Finally, it was clear from respondents that the three issues of integrity, of community and of involvement were perceived to matter for all people coming into AifL at whatever point. They were not simply issues for the early stages of an initiative.

6.3 Some challenges to the future of AifL

The promotion of formative assessment that evidently has educational integrity, the development of collaborative communities and the active, committed engagement in formative assessment of classroom teachers certainly need to be central to future growth of the AifL Programme. A number of other challenges were identified by participants in the evaluation exercise or by the researchers in the course of analysing the data.

Complexity

The key factors for growing formative assessment grouped under the three sub-headings in Section 6.2 may appear to be clear and straightforward in many respects. However, making these ideas real, promoting and achieving growth in formative assessment is inevitably complex, because of the need to have them all operating smoothly in simultaneous conjunction with one another. Over-simplification of the growth process is likely to endanger its success. This applies to the complexity of the factors interacting in the learning, formative assessment and teaching processes and to the interaction among the several communities making their essential contributions to the growth of very good practice. We have to live with complexity. The process is messy. There are large numbers of people involved trying to work through ways of contextualising ideas in their own situations. There may be a temptation to simplify the process, for example, to cut out the time for individual teachers to make sense of the ideas from research or to speed up the process by, for example, using teachers in the first phase of AifL to tell others of their experiences in lecture presentations. The evidence from this study suggests that the messiness is an essential part of the process. There are no shortcuts to real and meaningful change

Another aspect of the complexity of the task was mentioned by those teachers who were aware that the scale of the growth task may be large. In addition, there are three particular issues that further complicate the clarity of the messages and which need to be taken into account.

Action on planning

The first is the need to recognise that the development planning strategy strongly supported by the EA representatives can operate in a variety of ways, not all of which do lead on to real improvement in learning and teaching. The planning approach needs to ensure that full attention is given to the other factors identified by the teachers as helpful in their development of formative assessment. It also needs to ensure that timely action puts plans into effect. The absence of research, policy or practical action from the planning process is likely to introduce a risk to future success; for example, if teachers' investigative action loses connection with research evidence to become simply reflection on practice

Strategies or principles?

The other two issues are linked. One is the apparent reluctance of a number of teachers to relate the good things that were happening in their classrooms to established learning theory, or, perhaps, their lack of experience in doing that. Teachers described their development of learning contexts and activities, such as investigative work, group interactions, getting pupils to explain their thinking and discuss their strengths, errors and learning needs. These were practical examples of established learning theories (e.g., constructivist and social constructivist). They did not, however, use the language of such theories, but perhaps more importantly nor did many appear to develop generalisations of their own that amounted to theorising from their practical experience (though they did recognise the applicability of the approaches they were using in other classes and other subjects). Though they welcomed the credibility given to formative assessment by the involvement of university staff in explaining the research evidence linking approaches and impact, many did not seek a deep understanding of it for themselves.

Aspects of the ideas that learning is constructivist, experiential, social and standards-based emerged in the interviews from the descriptions of practices, which enabled pupils to interact, think, seek and use information purposefully. However, there was little indication that the teachers were aware of the powerful ideas on learning which underpinned the success of their chosen practices. Rather, they strongly emphasised the importance of the ideas and strategies being presented to them in *practical* ways.

It could be argued that the foundations and future development of teachers' professionalism are compromised by the fact that their communications about successful practice are a-theoretical, based on exchange of strategies – some would disparagingly say tips for teachers - followed by trial and error application. On the other hand, it may be that there is such a thing as in-depth practical understanding – knowing what works without knowledge of recognised theories, but amounting to an unarticulated theory of classroom practice based on one's own developing experience.

Whether this kind of theorising/generalising from specific experiences was occurring was unclear. Teachers did often describe formative assessment as a series of strategies or techniques. Some had chosen to use only a small number of the strategies suggested to them. It was not clear whether they – and others, who had used a wider range – saw formative assessment as a set of specific classroom strategies or as a principled approach to all teaching and to stimulation of and interaction with pupils' thinking and learning activities. Some may have referred to strategies or techniques as shorthand for an in-depth understanding of formative assessment operating in multiple and flexible ways in all their teaching. Or they may actually have a much narrower idea of formative assessment simply as the use of, for example, traffic lights or fat questions or peer assessment. Both interpretations of what may be happening highlight a risk to the future growth of AifL. If some teachers see specific strategies as synonymous with formative assessment, there is a risk that the learning purposes of the strategies will be lost. For example, *wait time* will lose its association with thinking and basketball *rather than tennis* will lose its focus on developing ideas amongst learners, and shifting the power relationship amongst teachers and learners. On the other hand, even if teachers are using the names of strategies as shorthand for deeper ideas about learning, as they work with others coming new into the programme there is a danger that they communicate that strategies matter, rather than ideas. Both are essential to real change. The effective and widespread development of both

understanding of deep principles and practical action for formative assessment is a key challenge for the future.

Different communities, different priorities?

The need for all the wheels of the old fashioned clock to work smoothly together – for all the essential contributors to a successful development, from several communities, to interact effectively – emerges very clearly from both research on successful change and from the views of school and EA staff involved in the project. However, it was notable that, while each community was well aware of the important role(s) of the others, its members inevitably saw the development of formative assessment from their own angle. For example, teachers spoke most frequently about their own classroom practice and their reflections on it, their own interactions with colleagues and their own perceptions of effects on pupils. EA staff, by contrast, though they, of course, referred to the importance of teachers' activity, placed the strongest emphasis in identifying future needs on factors within their own remit – provision of staff development time and resources, EA and school development planning, quality assurance systems. The researchers interpreting the data and writing the report are conscious of their own emphases, for instance on the concept of informed, interacting communities and on the need for in-depth understanding of the principles of learning and formative assessment. These emphases have been influenced by their knowledge of research findings about significant change and by their individual experience of previous successful and unsuccessful development projects. It is inevitable that participants in a development from different communities will reflect standpoints derived from their experience. It is also a source of richness and gives an opportunity to make effective use of several relevant types of experience and expertise. As the AifL Programme moves forward, it will be crucially important to guard against any tendency for one or other community to predominate, to disregard the key contributions of others, or to fail to play its essential part in ensuring the balance of the development mechanism. Each community needs to be aware that its particular contribution has to mesh with those of others with their different perceptions of key factors in the development. The indications from AifL are positive. Teachers, pupils, school managers, EA staff, HMIE, researchers, teacher educators and SEED are indeed collaborating in mutual trust to develop formative assessment and the wider AifL Programme successfully.

Finally, it was a little surprising that the analysis of the data provided relatively few references to working with parents. Informal evidence from teachers and others involved more widely in the AifL initiative has suggested the crucial role of parents in making AifL successful. It may be helpful to pay close attention to this area in future developments.

In Conclusion

The success of formative assessment in Aifl appears to have come by collaborative action; growing small-scale, practical investigative action by teachers, grounded in research evidence and supported by policy. To date the programme has been able to cope with the complexity of engaging communities and supporting dialogue within and across communities weaving ideas together to create new and deeper understandings (Russell, 2004). Continued success is likely to depend on communities

being able to continue to live with complexity. As Hoban suggests, future planning will need to

‘...focus on the interrelationships that result from the dynamic interactions among multiple elements in a complex system.’
(2002: 38).

The metaphor of being on a journey through the process of change in assessment is a common theme in journal articles previously published about AifL (Hayward et al, 2004, Hayward & Hedge, 2005, Hutchinson & Hayward, 2005, Hayward & Spencer (2006 in press). The report on this particular investigation might be seen as a signpost, reassuring those on the journey that they are still on the right road but reminding them that the road is as yet only partly constructed and that various dangers still lie ahead.