ASSESSMENT IS FOR LEARNING: EXPLORING PROGRAMME SUCCESS

THE AifL FORMATIVE ASSESSMENT PROJECT

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RESEARCH REPORT

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1 Introduction

Assessment is for Learning (AifL) is a programme that is striving to build a coherent national system of assessment. This system comprises three interweaving strands of activity: promoting excellence in professional assessment practice, emphasising the centrality of teachers' judgements; building arrangements for local quality assurance, to ensure consistency and reliability of judgement; and, for national monitoring of attainment, relying on a cycle of sample surveys rather than collecting data for all schools and pupils. The programme has also been designed to take account of research on the management of change, so that that the new system is developed collaboratively with all stakeholders, thus enhancing practice across the research, policy and practice communities.

Assessment is for Learning has grown from the assessment policy in the 1990s. 'Assessment 5-14: Improving the Quality of learning and Teaching' (SOED, 1991) was research informed and had been well received by the profession. However, HMIE reported that by the late 1990s the policy had still had little impact on practice (HMIE, 1999). Lack of impact of policy on practice is not a situation unique to Scotland. There is a substantial body of evidence to suggest that plans for curriculum change often lead to little change in practice (Olson, 2002; Barnes, Clarke & Stephens, 2000; Swann & Brown, 1997; Cuban, 1994). What was difficult to understand in Scotland was why, having been so strongly supportive of the principles of Assessment 5-14, schools had not really taken them on. The seminal research review by Black& Wiliam (1998) provided evidence about the benefits of good assessment consistent with the research that had informed Assessment 5-14 policy, but also noted similar challenges to those being experienced in Scotland in the relationship between policy and practice. A range of influences has probably contributed to the emerging gaps in research, policy and practice: the wider policy and political contexts, the model of staff development used to disseminate policy, the model of teacher professionalism inherent in the 5-14 programme, the lack of impact of staff development resources (Hayward & Hedge, 2005, Hutchinson & Hayward, 2005). However, in common with many other countries by the late 1990s, Scotland found itself caught in what Cuban (1994:2) describes as a sea of innovation 'tossing up twenty foot waves' whilst the ocean floor of classroom practice remained relatively undisturbed.

A consultation on the outcomes of the HMIe review (1999) was conducted by the University of Glasgow and published in December 2000 (Hayward et al., 2000). The consultation highlighted key changes desired by stakeholders from a wide range of communities with an interest in assessment in Scotland (Hayward & Hedge, 2005). Essentially, changes were sought in the practical application of Assessment but not in the principles that lay behind the Assessment 5-14 policy (SOED, 1991). The prime focus should be on assessment rather than measurement. Respondents wanted manageable change, properly resourced and supported, with due attention to up-to-date research evidence. The central message was for an evolutionary rather than revolutionary change process to address: the complexities of formative assessment as part of day-to-day activities in classrooms; the relationship between assessment for

learning and assessment for accountability; and the collection of evidence to maintain a clear focus on learning.

The AifL Programme was established in 2001 and in its first two years supported projects exploring the improvement of classroom assessment, more effective sharing of standards across Scotland, and provision of sound data for national monitoring. Each project involved 20 – 35 schools. The first set of projects focused on formative assessment, personal learning planning, partnership with and reporting to parents and the inclusion of pupils with additional support needs. The second set focused on effective monitoring of learning and achievement, summarizing pupils' levels of attainment and achievements and ways of checking the accuracy and consistency of judgments. The third set of projects was established to explore how to obtain data for purposes of national monitoring without impacting negatively on assessment in classrooms. Projects focused on 'sharing the standard': gathering and interpreting evidence; local moderation including new National Assessments; and the Assessment of Achievement Programme.

AifL sought to involve researchers, policy makers and practitioners in the programme, building sustainable learning communities. The programme describes itself as being neither top down nor bottom up but is participative and collaborative, following key principles of transformational change (Senge & Scharmer, 2001, Hoban, 2002, Fullan, 2003). AifL describes itself as learning as it grows, commonly using metaphors of journeys to portray progress.

The programme has now been developing for three years and has been evaluated as a whole by the University of Strathclyde (Condie et al., 2005). The formative assessment part of the AifL programme has also been evaluated by the London University Institute of Education (Hallam et al, 2004). The evidence has consistently suggested considerable impact of AifL in schools and EAs across Scotland. In particular the formative assessment project appears to have made a significant impact on teachers in classrooms: they have provided very convincing reports of significant changes in practices.

One of the tasks of the Higher Education Research and Development group within AifL is to work with the programme management group to assess and investigate risks to the developing programme. This project has arisen as a response to one perceived risk. Although the evaluation data suggested that the formative assessment part of the programme had been very successful, it was less easy to be clear why. A range of features had been built into the programme, e.g., the inclusion of a wide range of communities, the clear link between research, policy and practice, the task-related nature of the programme, with in-built accountability, small scale grants, highly respected speakers, opportunities for groups to meet and to develop ideas collaboratively. Which were most important? Other features emerged into sharper focus as the programme developed, e.g., the importance for teachers of seeing children grow as learners, teachers' confidence, the creation of new knowledge and new communities. Interesting areas for exploration began to emerge, including the link between ideas and formative assessment strategies and the relationship between this link and successful practice. Unless we could be clearer about what factors, or, more likely, what combinations of factors, had led to the success of the formative

assessment project, there could be a danger of less success as the programme moved into its next crucial phase, involving not just three hundred schools but more than three thousand.

The investigation to explore programme success therefore sought to identify the critical aspects of the formative assessment programme that had stimulated and maintained teachers' strong commitment to it.

2. Research Questions and Methodology

If the information from an investigation such as this is to be of real use to the policy, practice and research communities likely to be interested in its findings, it is important to be clear about what the project is trying to explore, what it is likely to be possible to investigate and what the limitations of the data are likely to be. AifL is a programme that has aspired to deal with the complexity of the process of change, arguing that to do otherwise colludes with a change model likely to become, in Cuban's terms, one more superficial hurricane with little impact on practice in classrooms. There is an ever-present danger in innovation of reductionism, a desire to simplify the complex, to make things manageable, rather than to keep a clear and consistent focus on what matters for permanent change, permanent improvement in teaching and learning. It was important therefore in the design of this study to ensure that voices from the policy community, from the practice community and from the research community were all part of the discourse; to reflect on issues emerging from a range of different voices and thus to avoid oversimplification. The challenge in any project such as this is to collect data that give different perspectives on the situation to be explored, in order to try to understand more deeply the complexities involved. The project has sought, therefore, to investigate the perceptions and ideas about what mattered in making AifL feel successful to a range of interested parties in a range of circumstances.

2.1 Research questions

In awareness of the complexity of likely responses from differing points of view, the project sought answers to the following questions.

> What factors or combination of factors led teachers and school managers to commit time and energy to the programme?
>
> What was the focus of the planned change in their practice? Why was this identified as a locus for change?
>
> What factor or combination of factors led teachers and school mangers to make real changes in classroom practice?
>
> What was the main stimulus to changed understanding which consolidated their new practice?
>
> What were the characteristics and status of the role adopted by the Development Officers?
>
> To what extent are the key factors or the combination of factors that led to success present within the different EA strategies to extend the assessment programme beyond the pilot stage?

2.2 Ethics and confidentiality

The research was designed to be consistent with the Revised Ethical Guidelines for Educational Research from the British Educational Research Association (2004). For example, the research methodology was developed to be 'fit for the purpose of the research being undertaken' (BERA, 2004:10). Education Authorities and schools were invited to participate by the research team and informed that there would be no negative impact on any individual, school or EA should they decide either not to take part or to withdraw at any time during the project. Informants were made aware that information from schools would not be available to individual EAs nor analysed in EA groups. All the EAs and schools invited were willing to participate.

Participants in the research were informed that data would not be attributed to individual interviewees, except on request that contributions made by them should be acknowledged. In some cases, however, because of the relatively small number of schools and EAs involved in the investigation, it might be possible to attribute comments. In such circumstances, if there was any possibility that a comment might be regarded as in any way controversial, the research team sought to verify the comment with the individual and agree whether or not it should be included. The EAs are identified as A, B, C, D, E & F. Schools are identified only as primary, secondary or special schools. Although the sample is small, it was considered that these arrangements would give a degree of anonymity to schools and EAs.

This report aims to be consistent with the draft reporting guidelines from the Evidence for Policy and Practice in Education (EPPI) Centre (2005).

2.3 Data limitations

The data emerging from this research project provide in-depth and comprehensive evidence about the perceptions of those involved in the policy and practice communities associated with the six EAs involved in the investigation. However, the nature of the study is such that caution is required. Firstly, the study is illuminative in nature. Numbers involved in the study are small in relation to the numbers of schools now involved in AifL in Scotland and the findings are not susceptible to generalisation. Indeed, the inappropriateness of generalisation is an issue of particular significance for this project and will be discussed in more detail in section 5 of this report. Schools are individual and collective communities, each with its own dynamic and variables - centrally the particular staff, pupils and parents who are part of that community - that render it unique. Secondly, the investigation deals with perceptions. The analysis of data is based on the results of detailed interviews with teachers, headteachers or other members of schools' senior management and Education Authority assessment co-ordinators. There has been no attempt to observe classroom practice. The data do offer insights into people's perceptions of what has made AifL successful in their terms. The voices of the different groups interviewed suggest where there are similarities and differences in view across or within particular communities. It is not anticipated that the evidence from this study will provide instant solutions for particular schools or EAs, but it may provide issues for reflection for individual teachers, schools, researchers and local and national policy makers.

However, these ideas will have to be worked out in the reflections, discussions and action of each community.

2.4 A range of perspectives

The project sought information from the policy and practice communities within Education Authorities representing largely urban, largely rural and mixed areas of the country. Within each authority teachers and headteachers from schools involved in the formative assessment programme were interviewed. Interviews were also held with Education Authority co-ordinators.

2.5 Interviews

The interviews were semi-structured. This made it possible to explore key points from an analysis of research and policy as these had emerged within the AifL programme. It also offered opportunities for interviewees to raise issues that interested or concerned them.

Interviews with education authority staff

In the first part of the interview with education authority staff information was sought on the background of the co-ordinator before becoming part of the AifL programme, in particular to identify any previous assessment experience. Questions then focused on the rationale for the involvement of schools within the first phase of the formative assessment programme and the relationship between the post of co-ordinator and the participating schools. The interview then explored the participant's own understanding of formative assessment and her/his perception of the success of formative assessment within the Authority's schools.

The second part of the interview focused on issues of sustainability. Participants were asked to identify the crucial features of the programme contributing to success and to indicate how their EAs were planning to grow the programme across the authority. The third section of the interview explored in greater detail the school projects and the kinds of support that had been available and had been regarded as helpful. Advice was sought on what additional support would be helpful nationally and locally. In the final section of the interview, comment was invited on two key issues: tracking progress over time in a context focusing on formative assessment; and the relationship between assessment to support learning and for reporting summatively on attainment.

Interviews with teachers and headteachers

After providing preliminary information about the stage of education they worked in and the curricular areas where they had developed formative assessment, school staff were asked to give their views on the nature of very good formative assessment and its relevance both in the areas where they had used it and more widely. In particular they were asked to identify what had convinced them in the first place that formative assessment was worth trying and that, later, it was in fact working. This first set of questions concluded with an invitation to indicate what participants had learned about learning and teaching from their involvement. A second set of questions sought views about what had effectively helped them to develop formative assessment approaches, with some prompts covering such suggestions as experts, practising teachers' experience, school management, Education Authority staff support. In a third section

of the interview, staff were asked to indicate ways in which they hoped to develop formative assessment further in their own work and to suggest steps that would persuade colleagues as yet uninvolved of its importance. Finally, they were asked to comment on any practical experience they already had of trying to promote formative assessment in staff development with colleagues.

The schedules for the interviews are in Appendices A and B and the analyses of the responses are reported in Sections 3 and 4.

2.6 Data analysis

The qualitative data emerging from the interviews with EA staff, with headteachers and with teachers were analysed by coding a sample of the responses and developing a framework of emerging themes. The framework was checked for robustness as more data were analysed and was adapted as appropriate. In sections 3, 4 and 5 of this report we provide the analysis of data. In section 3 we focus on the impact of formative assessment on teachers and pupils, as reported by school staff. In section 4 the focus is on issues of sustainability, from the perspective of school staff. Section five presents the analysis of the views of EA co-ordinators. In each section we make extensive use of the voices of interviewees to raise issues in as authentic a context as is possible within the limitations of the investigation.

3. The Impact of Formative Assessment on Teachers and Pupils: Perspectives from Schools

A number of the teachers in both primary and secondary schools indicated that, as a consequence of their experiences in the project, they had significantly changed as teachers. Whatever happened within the project in the long term, they saw the change in their practice or thinking as permanent.

I don't think I'll ever go back to being the kind of teacher I was before. And it just becomes part of you. Part of your teaching manner. And it didn't happen overnight. It happened gradually, as you read material, as you saw what other people were doing, as you were listening to others, as you tried things. And I'd be prepared to say that some things worked and some things didn't work. And maybe there were reasons for that. But the whole ethos of the system, I still think it's of huge value and that's the way we should be teaching. So I don't want it to die. I mean, at my stage in life you could say, "Right, okay, four or five years to go, too late to change". But never. These pupils are only in your room once. (Secondary teacher)

(Interviewer) And in your opinion then, your teaching's improved?
I would say so, yes. Which is a horrible admission after all the time I've spent in teaching, that it's taken me this long to improve. (Secondary teacher)

One headteacher noted the extent to which staff involved in the project were now more reflective in their approach:

Much more reflective and more willing to say, "No that doesn't work, but that will". More able now to sort of say, "Oh well, I'll need to think that through with them or they won't catch onto that". And much more critical of things as well. (Primary headteacher)

3.1 Specific impact on thinking and practice

Thinking about how pupils learn
It's just the shift of emphasis from the teaching to the learning, you know. (Primary headteacher)

There was a range of responses in the interviews, which indicated the different ways in which thinking and practice had been affected by teachers' involvement. Some reflected the way in which learning and understanding, rather than teaching and coverage of the curriculum, had become a focus of attention and interest.

Yes. It made me think, it made me think. It made me think far more about my teaching with every single class. It made me think how the pupil was thinking and to get my mind into their mind and think, "Right, where is this pupil at? Why are they not understanding, while to me it's crystal clear? How can I help them progress? How can I encourage them not to give up? How can I imagine I'm sitting in their seat listening to this guy?" (Secondary teacher).

And it taught them a great lesson, you know, you can learn from being wrong and in actual fact, add a lot more value to the lesson by doing that. You know, you see the children learning a great deal more. There's more satisfaction I think. (Primary teacher).

Moving from a curriculum-centred to a learner-centred approach
Although a number of teachers, in both primary and secondary, expressed the view that the curriculum was constraining some of their efforts, others appeared to have appreciated the need to shift the focus from curriculum coverage to a focus on learning.

What I heard from most people originally was, "There's no time. When are we going to do it?" Now, I'm firmly of the opinion that we crammed curriculum to keep the kids busy, to keep them quiet over many years. I think it's we as a profession have overcrowded the curriculum and that it can be fine tuned. But I as a PT can't expect teachers to take on formative assessment if I don't free the time. So… It's time consuming in that you do not go on the roller coaster of, It's 14th January", - if you've seen a lot of school schemes, - "it's 14th January, we are on page such-and-such". You cannot have that scenario, because if the pupils do not understand on one day, they're not going to understand on the next. If you give a homework and you unearth problems, you must have the time to correct them before you go on. [Secondary principal teacher]

Checking for understanding
Strategies for checking that pupils had actually understood material now became part of the repertoire of some teachers:

I think it's taking what you've just done, you know, what the children have just said and using that to take on their learning from that point. And, you know, I think in the past I was always doing my assessment at the end of something, at the end of the topic, and then move on. And you wouldn't really have that time to sort of change… If they didn't understand something, you didn't really have time to go back over it because you've got this pressure of time on you. So I found that because you could do this traffic lighting so quickly and things like that, you could check their understanding immediately and you could focus on that again. (Primary teacher)

For others, there had come a realisation that, often, it was not only teaching that pupils did not understand; they also did not understand the teacher's feedback on how to improve work: -

I now use for my Standard Grade class… I had quite a, not poor, but a fairly low General Standard Grade class and was shocked to find out that I was reading their essays, I was writing what I thought were very clear responses - "This is what you need to do to make this better" - and was shocked to find that they didn't actually understand what I had written. You know, despite the fact that I thought I was making it quite simplistic. And what then happened – it was a waste of time – they would just take the piece of writing, copy it out again, and then give me it back. And, you know, I was frustrated 'cause I'd spent lots of time marking it. So what I then started doing was I had a chair out the front and we'd try and ensure that I planned

that the rest of the class were doing something and I could actually speak to each pupil individually. (Secondary teacher)

Another teacher adopted the strategy of getting the pupils to write down from the feedback what they understood they needed to do for improvement:

But it wasn't time consuming in terms of my marking. Because I wouldn't, you know, mark and don't have to write, "Do this, do this, change this". You know, I was just talking to them and that way I could use language that they were understanding. They wrote down and I could quickly look at it and see that they understood what needed to be done and then they were happier about going away, because they were aware of what was needed. So their re-drafting process then became worthwhile. (Secondary teacher)

Feeling more Confident as a Teacher
One change indicated by several interviewees was their increased confidence as teachers to innovate and take risks, abandoning previous well established routines.

One teacher described how her confidence had grown to allow her to abandon the typical science report, which had required pupils to produce writing, but without necessarily demonstrating understanding. As a consequence, because the response to the requirement was now under their control and was relevant to their own learning and understanding, the pupils had actually produced more writing:

The writing wasn't good. They didn't enjoy it. I said, "Well, if you're a scientist you have to write up your experiments. There's nothing you can do". But because of this confidence and because in Assessment is for Learning, they told us, "Right, they've got the questions and they're allowed to write". They don't even actually have to write, they can just do some diagrams with some labels, labelled diagrams, they can write short sentences, they can write paragraphs. There's no pressure on them to write pages and pages of things they're not interested in. They write their own thoughts of the lesson. They write what they have learned, what they've taken from it. And that was amazing. Because they're not under any pressure to write they actually write loads! (Primary teacher)

For another, there was reassurance about what had been good practice in the past, as well as pointers towards innovation:

I think the confidence I've been given is that what I was doing on my own has sound research backing. But the pupils definitely, it's given me the language to share with them. That's without a doubt. I wouldn't have involved pupils in making up marking schemes for example, mind map, brainstorming. "What are we going to test in this exam then? Let's go on. Have a look at the topics. What do you think we should test here?" That's all new and it's great fun. (Secondary teacher)

Letting go of teacher control
The jotter might look lovely but not one of those things was their idea. (Primary teacher)

For some of the respondents, letting go of the teacher domination and close control of the learning context had been difficult, but worthwhile:

'Cause that was one worry I think in the beginning. If you were giving this ball out to your class to pass around each other, you know, were you going to lose control of your class? Because probably previously the lesson was structured from your, probably from your point of view. You were leading the lesson and you were saying, right this is the step, this is the answer I've got to get, this is the next thing, this is the next thing. Whereas it was taking that step of handing that over to the children and going with their flow of thought. That when you gave them a question to discuss and evaluate, they might not give you back the answers that you were particularly looking for but that there was value in teasing these things out and asking others what they thought of it. And it did very, very quickly become – not that it wasn't child-centred before – but it became so child-centred, the children were leading everything. The big opening question was just maybe a couple of guiding points that we had to think about and after that it was really their ball game. (Primary teacher)

Now I have moved on. I don't mark homework. I may sign it, I get it done, but it's shared. It's the responsibility of the pupil to do it. It's the responsibility of the pupil to mark it then discuss it with me. But they now know that, "what good is copying?" So that's been a big change. (Secondary principal teacher)

One teacher indicated that the new model of managing learning resulted in a lot of noise – something that many teachers would find difficult to manage!

And all very likeable children. A few with learning difficulties ... in amongst them. But a very lively, restless, bouncy bunch. And I found such a noise when they are doing for themselves in this class, but in actual fact when I look at it afterwards, they <u>have</u> done it, they've just been so noisy doing it. And I think there's a lot of teachers couldn't handle that. You know, you want that structure… The day we were doing these reports on Scotland, they were all so busy and so engrossed but it was pandemonium really. But they were focussed on the job, and the results were there to show it… (Primary teacher)

Learning about the Learners
Giving pupils the opportunity to engage in learner-centred discussions revealed not only their knowledge about many content areas, but an ability to understand and reflect on their own learning which surprised many teachers:

And it's all, they tell you all the information! It's amazing what they know. Amazing! You take a lot of things for granted but you don't realise the children's own knowledge of things. And they don't realise what they know sometimes. Some of them say, "Well why do you paint the metal? So that it doesn't rust". There you are. You know, I mean, they don't realise that they know so much themselves. And from that, using those questions, they can formulate their own report. Now before, writing up science lessons or science experiments, the children used to switch off. (Primary teacher)

What is it that you're not sure about?" And the children – it's amazing – they can actually say, "I don't know how to do x, y and z". They're quite specific about what they know and what they don't know. And it's just taking the time to actually ask them about what it is they're learning and using that knowledge to then go on and teach. [Primary teacher]

The ones in primary 6 now who were involved in the project initially in primary 4, you can see them almost beginning to think what is their learning style rather than, you know, "I have to learn this". You can see them trying to think, "Well what's the way I have to learn? What target would I need to get?". You know, they're very good at thinking that through as well. [Primary headteacher]

3.2 Adopting new classroom strategies

Strategies for investigating understanding
Several teachers noted the benefits of applying assessment and feedback as closely as possible to the learning:

And another thing I do is mark in class time, which I never did before. Because what I find – especially with maths – if you mark in class and they've got a number of them wrong, they've just done that work. "Where did you go wrong? What did you do?" And they're able to go back and say, "Well, I did this". So they're able then to go and do the next couple, hopefully correctly! …. Rather than the next day coming back and saying, "What did you do wrong?" "Oh, I can't remember. I don't know". So there's a lot of value in that as well and I find that the children have learnt quite a lot from that. And it's great from a teacher's point of view as well, you know, because a) you've less work to do at home but b) the other problem though is it will take up more time in class - but the value that the children get out of it outweighs that. (Primary teacher)

Strategies to allow pupils to think
Everybody's equal, everybody's asked questions, everybody knows that I already know the answer anyway, they're on a learning project. And there would be absolutely no point asking them questions that don't make them think. So that actually went down very, very well. (Secondary principal teacher)

One of the issues, which successful developers of formative assessment have identified, is the need to assist the pupils and others to learn the new system. Several respondents described how they had tried to do this. 'Wait time', in particular, posed problems for teachers as well as pupils:

And I didn't mind. A lot of other people commented about the fact they hated the big silences and the fact that nobody was putting their hand up, whereas again, just the look of panic on their face showed that they were actually thinking as opposed to recognising, "Oh he always puts his hand up first and I don't even have to think". So you could actually see that they were all trying to manage some kind of answer. (Secondary teacher)

I didn't use wait time at all in my class because you would just ask a question and you'd just immediately choose a child with their hand straight up. So I found that

really difficult at first, to try to wait. And I had made up a wee rhyme to help me remember to wait for at least 20 seconds. (What was the rhyme?) 1, 2, 3, 4, you must wait a little more. 5, 6, 7, 8, come on R**** you must wait. 9, 10, 11, 12, into their brains you will delve. 13, 14, 15, 16, all their knowledge you will glean. 17, 18, 19, 20, okay R****. And I'd be saying this in my head while the kids were putting their hands up. And some children found it really hard to wait and wait. They were shouting at me, "Mrs X!!" And shout(ing) the answer at me. You just had to keep ignoring them. But we eventually got there. (Primary teacher)

3.3 Inducting pupils and parents

Clearly, if teachers make significant changes in their practice, pupils and parents have to understand and engage with the new requirements positively. Several respondents indicated the ways in which they inducted both pupils and parents into the new ways of working.

Replacing well established strategies
There were different things that just took time to embed. For example, I tried to get them not to put their hands up and again, initially, it did not work. The younger ones, I actually had to get them to sit on their hands because they just couldn't… and then they would, you know, sometimes shout out. But once it was in place and they were used to it, I actually found that most of the strategies worked. [Secondary teacher]

Giving pupils a manageable system
Black (1993) indicated that one of the keys to success in assisting pupils in their development and effective use of self assessment was to give them a clear and manageable system. One secondary teacher had done this through an imaginative extension of the 'traffic lights' system:

You know, I had assumed that they would find that too childish but they quite liked it. And I've now also invested money in red, yellow and green highlighter pens so they can do it by a different method…. you know, something that's on a worksheet or whatever. Or the Higher class, if they've finished and they've got notes on a poem, they can go over and highlight, you know, what they're secure about and then it means that you can specify, you know, tailor your teaching to what they actually don't know, instead of wasting time teaching them something that they've already understood. So I like the traffic light one really well. It's worked. (Secondary teacher)

Inducting Parents
There were relatively few references to indicate the ways in which schools had attempted to introduce ideas of formative assessment to parents. However, one headteacher described steps his school had taken to engage parents in thinking about learning with their children.

Initially we sent the children's work home and asked just for comments and we got comments and a half like, "Nice picture", "Nice neat handwriting", "Mummy loves you and your work", "Love and kisses, Mummy". All these kinds of things that were

all very cute but it wasn't actually what we wanted. So we learnt the hard way that we had to be more specific with parents. So we actually then, the next time I wrote to them it was, "Could you please comment on your child's use of capital letters", or, "the way they've done the sentences". And some of the comments we get now are just so specific and things like, "I'll help him with this at home", "I'll make sure I point out the capital letters when he's doing his reading". You know, and not just with your good parents, it's with everybody. With everybody. (Primary headteacher)

3.4 Impact on pupils' self-esteem, engagement and attainment

They definitely are motivated and I think they definitely are more capable (Primary teacher).

Impact on self-esteem and engagement
There was evidence from the teachers' accounts which indicated that pupils' self-esteem and engagement with school work had improved – particularly with boys or learners who had previously had difficulties.

So he has gone from being the one who really had to get kicked up the backside to get tasks finished to being the one who, because he's doing it for himself now, is coming away with the most wonderful, you know, sentences and…Not always 100% on target, you know. He's maybe gone off at a slight tangent but you can see his line of thought, you know. And he has got his reasons. And every single time he goes to write something now, whether it's in science, health or our PSD – personal and social development – or whether it's in the topic or whatever, as soon as they're asked to record whatever we've been talking about you can be sure he'll be out with some big word to go in his sentence. (Primary teacher)

Some of the children, the more able ones, would bring in more of their own knowledge and expand it, and the kind of, the ones that were kind of less able would maybe just start off with their diagrams and their few words, and the next time they'd write sentences. I've got a boy now that's writing me fantastic paragraphs, whereas before he wasn't writing very much at all. He was, I would say, well he came in not having his Level B writing and he's probably sitting at a Level C now I would say (Primary teacher).

Confidence grows. They would never go back. There's a wee boy working out there who had learning difficulties, he needed support in language. He's on the star pupil board. You wouldn't believe what he can write. And that's all with his new self-esteem. That's all starting out on just a few words, saying, "That's brilliant", 'cause the wee boy has the interest but not maybe the ability. I think they feel very much more, you know, "We're finding out about it. It's not that the teacher's telling us about it, it's that we're finding out about it. She's listening to what we know" (Primary teacher).

Impact on attainment
A number of schools reported their perception that engaging children in formative assessment had had a positive impact on attainment, particularly amongst children

who had previously found learning hard. Some teachers also made reference to a positive impact across the curriculum of developing formative assessment in one area.

The poor group in primary 6 are only just passed B. Now they haven't had any of this. And the ones who've had it for three years have overtaken them. And that to me is the comparison. It's the poorer children who have definitely had the most success. We have got 100% attainment in Level A in primary 2, 100% attainment… no, 70% attainment in Level B in primary 3, 100% - first time ever – in primary 4 with a very reluctant teacher, very sceptical. I've been teaching most of the year now. The acting head [NB CHECK: HT OR DHT?] has been in and done it for two and she is gobsmacked. Can't believe it and it's her final year of teaching. She retires in the summer and she's gone out on a high. She's never had 100% of B in everything and it's the children who started off in the projects. It is, it's super. And it's sustainable (Primary headteacher).

I've certainly been tracking the poorer ability groups. [090] they've overtaken in fact remarkably. And it's even in maths. You know, they're achieving in every curricular are. (Primary headteacher).

4. Sustaining Formative Assessment: perspectives from schools

4.1 What helped the project to work?

One of the central purposes of this study is to explore what teachers and headteachers believed to be important factors in making formative assessment work in their schools. This section identifies a number of themes relating to initial engagement and to sustaining teachers' own involvement that recurred throughout the interviews.

Practical guidance from colleagues

It gave me tools to change my teaching style (Primary teacher).

The agent of initial change that teachers mentioned most frequently was being shown practical ways of managing novel practices in their classrooms, either through modelling by another teacher or in a presentation at a conference. Clearly, such practical illustrations and endorsements offered by other teachers played a major part in triggering the interest of many teachers.

And some of them seemed, "Well I do that but maybe I'd like to do it more consistently"; and others I thought, "Well I'd like to try that". Because I think possibly the enthusiasm grew when we went to meetings, when we heard teachers who had tried the ideas in other schools coming back and saying it had worked (Secondary teacher).

In one primary school, the headteacher could see that project-based practice was gradually spreading through the staff, as a result of clear school commitment, modelling, discussions amongst staff and opportunities for teachers to try things out in informal, evolutionary ways:

Well the main evidence really was almost of an incidental nature, because I saw other staff beginning to do things, so they were obviously chatting over coffee, etc. Showing things, like, "Oh you'll never guess what she's making us do now", sort of thing. And then other people saying, "Oh well, is that working?" And then when I'm able to build the bigger picture, I see other teachers trying little bits without letting on about it. You know, that actually gave me quite a lot of satisfaction, because you could've actually had a huge in-service day and almost very didactically said to them, "I think we should try this", but you wouldn't have had the same keenness. So there's been a lot of evolution in it and we're at the stage now that everybody does it (Primary headteacher).

Through all the interviews it was clear that teachers did not engage the language of or use higher order theories about learning. A more academic approach was specifically rejected by one respondent:

I think just giving people books isn't the way to go because people find that you can get a book but you have to write reports, or whatever it is, you're busy and you don't get time (to read). Unless it catches your imagination straight away. So I don't know whether it's the theory's wrong, or videos of practice and people in their classrooms. People don't want to hear, you know, the theory … They want the practical ideas and

things that they can go away, look at something and say, "right okay. That's what I'm going to try", and go away with that idea (Primary teacher).

One teacher had discovered the power of pupils explaining their learning and of dialogue ways of learning:

I think what I'm looking at now is definitely the sharing, the dialogue, pupils speaking to themselves is maybe relatively not - to each other, sorry. Even speaking to yourself, you learn by. But you know, pupils rationalising what they're doing to another person is excellent. After all the class tests or homeworks, I would leave them to discuss red, amber, green what they got wrong. Leave them to discuss it, go over it as a class just quite informally – I'm not a formal person – have a vote on where they were having the problems (Secondary depute headteacher).

It could be that in rationalising their practice for others the teachers were clarifying in their own minds what they were doing and why. However, they did not typically include in their descriptions and communications statements about understanding at a deeper or more generalisable level. One anecdotally recounted what he had observed from the way in which he decided to organise group work, but did not discuss in more abstract terms the fact that his practice had exemplified the benefits of applying understanding of the powerful effects of the social contexts of learning:

I let them choose their own groups. That was quite interesting because by this time the class was a mixture of Credit/General pupils and therefore it was interesting to see that some of the General pupils joined the Credit pupils just because of friendship. There wasn't much contending between the groups. I tried to cut that to a minimum unless it was necessary. But they didn't seem to want to do that. There were three or four in most groups and it seemed to be a good number. Occasionally you'd get a passenger who just watched. I remember one boy who'd never opened his mouth for a year in my class, actually spoke and got quite animated about things. He's a very shy boy, very lacking in self-confidence, but with his peers he seemed to respond. So for him it was certainly an eye opener to me. And he had one or two good ideas. He's the kind of boy who cannot express himself in writing but verbally with his friends… I've always thought his mental work was quite good, I've always thought his number skills were quite good, but in terms of communication and writing or problem solving, to answer in sentences was just beyond him. But in terms of discussion, he became part of the group (Secondary teacher).

He had given the pupils some control over their learning context, allowing social groups to form in which the participants felt familiar and secure. This optimal learning context had been good for all the pupils, but in particular had allowed one pupil to engage with learning in ways that had not been previously possible.

Another teacher recounted in practical terms how her class would now reject the former typical experience of being given a worksheet to fill in or having to copy from the board or write up a structured account according to a report formula. They had now established a new way of working – clearly implementing a constructivist approach, similar to that within Critical Skills:

My class have now got so used to doing the talking, to doing the finding out, the key points that they need to know will be short-hand written bullet points or whatever on the blackboard, but they are then doing that recording for themselves. Or the key questions… they'll be doing the research and the recording. I mean, I'm still giving them fairly strong guidelines what I want them to record, 'cause they're primary 4. But I would say that yes, formative assessment has been a success for my class because the children are thinking about what they already know, thinking about what they need to find out, and they're learning how to record after it (Primary teacher).

The prominence of practicality in teachers' identification of key engaging factors in the project raises some issues, which are discussed in Section 6.

The integrity of the activity

An important set of issues relating to sustainability clustered around the theme of commitment to educational integrity, the importance of teachers' belief that they were involved in something meaningful, something worthwhile, something that was consistent with their view of their professional role, something that mattered to children's learning.

A number of teachers in both primary and secondary schools spoke of the formative assessment project as educationally principled and consistent with their views of good teaching and learning. They thus felt enabled to build their assessment practice on their own existing principles.

It's correct for educational reasons. That we are actually teaching the pupils. We're improving their learning. (Primary teacher).

It is quite along the lines of what I wanted to do for years. But it's possibly enabled me to do it better (Secondary teacher).

But I viewed it as enhancing my teaching, as being an enhanced experience, whereas I don't see it as being, "Oh no, I have to do this" (Primary teacher).

The most powerful influence on sustaining formative assessment was the evidence of success and progress teachers saw in their own classrooms. Teachers and headteachers in both primary and secondary schools commented on the positive changes they saw in their pupils learning. The immediacy of this positive feedback was a significant factor.

Now, the time to discuss. And quite, almost dramatic. How can that be so effective, giving children time to think and not put their hand up? ….. And the quality of their answers, it was amazing. The children who would normally have been quiet or been very reluctant to pick up a question about anything. (Primary teacher).

Showing them they can get the results because success for teachers as well is the best thing… (Primary headteacher).

Most commonly progress was described in terms of either strategies that helped change things in classrooms - e.g., improved levels of engagement, with all children playing a greater part throughout a lesson - or greater evidence of pupils being clearer about what they were learning and how best to get support.

I think the no hands up, to be perfectly honest, things like that. I think because they work they will sell themselves (Primary teacher).

The classes I've done it with, then it's quite a difference and what I'm saying - as somebody who's been doing almost this for a long time - but by actually focussing their mind on it, I'm now finding that if a pupil comes up to me at lunchtime before a test, they're not saying, "I'm needing help with trigonometry", they're coming with a page open, needing help on a specific area (Secondary teacher).

They've all got their own marking grids and they've all got... you know, so they're very aware of criteria, they're very aware of what's expected of them. You know, cross-marking each other's work.
(Interviewer) *Does that work?*
Yes. I think they have to be. How can they go into an exam and write a critical essay unless they know what the rules are (Secondary teacher)

Giving teachers ownership of the decisions

You're used to going to in-services and (being) told, "Do that, do that, this'll work, and try this idea". You get masses of ideas. But they showed us the wait time, they showed us the questioning techniques, that type of thing, videos, all the discussion about children getting marks and comments. If you put in the mark and the comment they'll forget it, they just go straight for the mark. So there was lots of things like that. And there's a wee bit of me thinks we had to come back and say, "What are we going to put for our action plan?", it was sort of ours, it belonged to us and we were going to decide and I think that was very clever having that. We weren't coming back and telling our people, "Well this is what we did". So we really had to sit down and discuss it. Another reason for this being so successful was we were given a grant. (Primary teacher).

Teachers were positive about the flexibility of the programme. They felt encouraged as professionals to grow and develop approaches or techniques from very small beginnings and to build them gradually into their day to day classroom work

I just find I've always been very interested in using new techniques and how you can motivate pupils. And when I see things are working that then, you know... And I've modified the techniques as I've gone along. And it started with an idea where all I heard was that you could use red, amber and green and then taking that... (Secondary teacher).

Confidence

Another set of factors contributing to successful implementation of formative assessment emerged around the theme of confidence. A number of features seemed inter-related. First there was an understanding of the ideas on which the strategies were based:

The discussion was the important thing, the understanding (Secondary teacher).

The perception that the ideas had credibility was important -

...because you've had the input from the university and things (Primary teacher).

A number of primary and secondary teachers referred to the importance of their own confidence as teachers. Some referred to existing confidence:

I mean, I'm confident in a classroom so it's easy. I've been teaching for so long and know the subject outside in. I can arrange things by instinct (Secondary teacher).

Others spoke of the importance of building teachers' confidence. There was a general acceptance that success came through

building formative assessment from existing activities…. beginning from where people are (Primary headteacher).

in gentle and supportive ways.

Both primary and secondary teachers described to formative assessment techniques as approaches they could integrate in existing practice.

(It's) not a matter of throwing everything you've done for the past however many years……. No, it's just trying to integrate new techniques. Again, as I said, like these were techniques that I hadn't heard about even during teacher training. So it was just building in the techniques into the classroom. (Secondary teacher)

Starting from where people were was perceived to be critical for experienced teachers:

They're not hugely different… just slightly… a wee slant on them (Secondary teacher).

and for beginning teachers:

We've got to … enable younger teachers to keep them onboard. And as I say, that's by flagging it as part of all their schemes (Primary headteacher).

Teachers commonly referred to a mix of features of the project that had made the experience a positive one for them, but confidence was a recurring theme.

Things that worked… these conferences and the local meetings and the different project workers that have come out and spoken to us, each time – and going to speak

to these headteacher conferences – each time we've done that my own confidence has grown (Primary teacher).
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A further factor identified by teachers and headteachers that made the formative assessment initiative attractive to them was what they perceived to be its honesty and openness. These also contributed to their professional confidence, since they indicated the commitment of those promoting the programme both to its aims and to the crucial role of teachers' own thinking, developments and views.

The organisers made that clear from day one. That they believed in it and they did not want it just to get swept under the carpet. And I think the follow-up impressed me. The reports were to be collected and put on the Web (Secondary teacher).

Some teachers mentioned that trust in the teacher or headteacher who had brought the project activities into the school was an important factor in their willingness to try them out and to believe that they were worthwhile.

Resources and time

The resources provided by the Scottish Executive were an important feature of the initiative for a number of reasons. The funding allowed schools to organise time for discussion and development -

All the money that came, we invested in time (Primary headteacher).

We were able to buy staff out of class, teachers out of class, to discuss and reflect on their plan for the project. We ourselves bought time out for writing up and meeting to discuss the project (Primary headteacher)..

Buying cover for teachers was not the only use of funds. In some cases staff were bought in to undertake particular tasks or teachers were paid to work outside their contract hours.

A classroom assistant was bought out to video and edit a lot of the materials (Primary teacher).

We paid ourselves and staff to stay afterwards to do it all properly (Primary teacher).

Range of project approaches

The range of approaches used within the project to engage people and to sustain them as it developed was a recurring theme. The significance of references to various types of supportive action was that different participants had benefited from different kinds of support. Some spoke positively of the inspirational presentations at seminars, some of networking with local colleagues and those attending seminars, some of the helpful visits from national development officers, some of encouragement by education

authority staff, and so on. One example of a particular preference is indicated in the following quotation:

I think, you know, whether it's being, you know, videoed or whatever so that people can see it in practice and talking to people and offering support. And I think, we were going along to a big conference or a big, you know, in-service, which is planned for the Authority here, isn't the way to go, in a way, because it's a big forum and some people will have questions. I know myself, I would never really have questions and you would never speak out. Whereas, small workshops…. (Secondary teacher).

It was clear, too, that some participants felt well supported precisely because there were several types of support, rather than because they favoured one particular type, which was available.

Addressing identified problems

In identifying what mattered in making the formative assessment project successful, numbers of both primary and secondary teachers spoke of the importance of listening to those involved, hearing their concerns and taking action to address problems arising whenever possible. Several problems were consistently raised by participants who were trying to develop formative assessment in their classrooms.

The first of these was time. Headteachers and principal teachers recognised the importance of their role in addressing this issue.

By making sure the time to do it is there. (Primary headteacher).

(It was important to) take the pressure off. (Secondary principal teacher).

Both primary and secondary managers also recognised their responsibility to ensure their support for what was being done in classrooms was clear - allaying teachers' concerns about their own accountability.

Our curriculum's already too crowded. But what will the headteacher say if I fall behind? Now they're very real worries for young teachers. So it is up to me as a PT to support them by giving them the confidence. (Secondary principal teacher)

It was interesting to note, however, that teachers' fears of 'falling behind' in the curriculum were often not realised in practice, while teachers believed that pupils were learning more effectively.

(In) the Standard Grade course, I managed to get through using formative assessment techniques on time, not behind at all. (Secondary teacher)

How could you convince staff, because they've got this to cover. It's the quality, it's the quality of that science lesson. The fact that here are children that discuss that,

that question, that showed their own understanding rather than rushing through this overloaded curriculum. And (the teachers) didn't say it slowed up their science. They found their science was less resource-led - "Oh, I must get this, must get this, must get this". (Primary headteacher)

4.2 Sustaining the initiative

Would teachers continue?

In considering the extent to which any initiative is sustainable, a key question is whether people involved in the early stages intend to continue with it beyond the period of their initial commitment. The evidence here was very positive in the majority of responses from teachers and headteachers in primary and secondary schools.

(Interviewer) So you are continuing with these techniques?
Yes. I'm trying to build it… We're actually, the course is being updated so it' s trying now to build it in to the new courses that we're going to carry forward for next year (Secondary teacher).

And I hope that it carries on because I know I'm going to carry on (Primary teacher).

Some teachers indicated that formative assessment ideas and strategies had become part of their more general teaching repertoire.

I think yes. I think it's embedded now. You know, your targets, you know, you would share those with the children all the time now (Primary teacher).

Well, certainly I would say now I'm using the techniques more than I did when I was actually doing the research project. I think just because I've seen that they work and I'm more confident about using them (Primary teacher).

I'm using them in all my classes, you know, to a certain extent. But I obviously have been focusing this year on the fifth year to see if it makes any difference. And they've all got their own marking grids and they've all got… you know, so they're very aware of criteria, they're very aware of what's expected of them. You know, cross-marking each other's work (Secondary teacher).

There was, therefore, a good deal of evidence that many teachers wished to continue to use formative assessment approaches because they saw their value. Other teachers were more cautious, some suggesting that they were finding ideas challenging but worth pursuing

I'm wanting to persevere with this group idea (Primary teacher).

A few teachers were less sure, some making reference to issues such as headteacher support or the need for resources -

Well I would hope so. But again, as I say, the assistance depends on cash available etc. You know, and headteacher. I think she's very keen to keep it going (Primary teacher).

Whilst others simply sounded less convinced:

But I'll still use obviously the traffic light system to some extent (Secondary teacher).

Sustained support
Many teachers argued that the kinds of support evident in the early stages of the project were also necessary to sustain involvement over time.

Knowing that other people cared enough about what was going on in a teacher's classroom to ask about it appeared to matter. In some cases where there was apparently a lack of concern, teachers' motivation to continue was affected:

They've checked up on what we're doing but that seems to have stopped. This is what worries me. The project sagged a wee bit (Primary teacher).

Some school managers recognised the importance of teachers feeling that their efforts were being valued. Strategies were introduced to provide a sense of audience and support for the teachers involved.

So what we set up was a cluster group of the other schools. ... Every so often they'd meet. And three of our staff, two from the other four primaries, and they knew that they'd be meeting every so often (Primary headteacher).

She (the headteacher) gets involved. She hasn't actually been in doing writing with my class but she has helped further down the school – primary 2s – with the probationary teacher, so she's been in helping them to develop (Primary teacher).

Teachers emphasised the importance of the initiative being part of the bigger system and consistent with other priorities. It was clear that the involvement of the policy community and representatives from across Scotland gave the initiative credence. Teachers saw it as something that mattered to the whole educational community,

The Education for Youth Minister ... Youth and Children. He's going to be there (at the conference) and it's a huge… I could tell when I went because there were people coming from Orkney and all that, you know, and there's people coming from like Bute and Harris…(Primary teacher).

4.3 Growing formative assessment in schools

Respondents suggested a number of ways in which ideas from the project were being grown in schools.

Extending formative assessment to the teacher's other classes

It was evident that a number of secondary school participants were introducing or intended to introduce formative assessment ideas to other classes.

I'm using them in all my classes, you know, to a certain extent (Secondary teacher).

Yeah, I still use it as well just now ... I was between subjects – computing and business studies – so I started off, it was computing classes and then, you know, built it in to business studies as well (Secondary teacher).

There was also similar evidence from primary schools, where teachers were going to move to teaching another stage.

Well, I think I'm just about to change direction, because I'm about to go down to a primary 1 class....I'm going to be trying out formative assessment in the early years and of course I've been working with R, so I've seen how she's run it, but I've never actually had the opportunity to put it into practice with the early years. I'm quite looking forward to that challenge as well (Primary teacher).

Other teachers were finding it harder to make connections. One teacher commented

In other subjects ... the only way I use it is maybe in mental maths and so on, you know, for correcting each other's and so on (Secondary teacher).

Growth across a school

A number of teachers and headteachers in both primary and secondary schools mentioned their attempts to grow formative assessment across the school or across areas or departments within it. The strategies they used included using people, resources and systems.

Using People

Using people to engage others in the programme within schools was regarded as an important strategy.

Both primary and secondary teachers were clear that schools had an important part to play in growing the programme. It was clear that action had already been taken across schools and education authorities to help extend formative assessment to teachers and schools beyond those involved in the initial project. Respondents often referred to the positive impact that listening to the teachers from the formative assessment project in England had had on their own attitudes to formative assessment at the beginning of the programme.

Because every thing we went to, everyone you met at lunchtime, coffee time, was enthusiastic about what they were doing. Every speaker had terrific stories to report. And we really thought, "Oh, this is the best thing since sliced bread. Someone's cracked it (Primary teacher).

Teachers in both primary and secondary sectors believed in the importance of capitalising on the expertise of existing participants as a means of enthusing and sustaining assessment for learning. Their reactions were most positive when they were listening to others who worked in their own sector. It was clear that in the project teachers had succeeded in enthusing one another:

L. and J were obviously sufficiently enthusiastic that they inspired the others (Primary headteacher)

One principal teacher described an approach that involved persuading new volunteers to join the group of those involved.

I was looking for volunteers. Now, they had seen the work. They'd heard L and J talk about it…. L and J were obviously sufficiently enthusiastic that they inspired the others (Primary principal teacher).

Others referred to the ways in which they had initiated discussions about formative assessment using their own experiences to enthuse others.

…I can be very specific about, you know, the close reading idea, that I can go in and actually explain it that way… The other thing that I'm also doing is - again, I think the department's really keen on this and so were the pupils – is much more work on sharing learning intentions (Secondary teacher).

Teachers in secondary schools seldom see commonalities across the different subject areas, but one respondent was reflecting on the possibility that there might be underlying common factors, although some teachers might simply not choose to engage with the successful strategies:

And surely there must be groups of subjects that would be quite similar. I would assume that techniques in English, maybe in history and French, you know, might be quite similar. Whereas the sciences would do a similar kind of teaching. You know, and a lot of it surely has to be the same. Whether you're questioning, you're questioning in English, you're questioning in whatever… But at the end of the day, if people feel they don't have time and aren't interested, I don't know what you would do to encourage them (Secondary teacher).

Some described the ways in which teachers visited each others' classrooms

…the idea that staff have been far more open in this school I think than in other schools. But it's partly because of the strategies we've introduced to do this that they're quite open to people coming in and out of their classrooms. So we also have a strategy of classroom observation where senior managers regularly visit classes and it's not the same as Big Brother watching you, and it's not the same as, you know, "We're here to tell you where you're failing". Although if that's an issue, we would raise it. But it's clearly seen as looking at good practice and sharing that back to the teachers. And, in an impersonal way, when we do a range of classroom visits we

share what information we have in school. We say, "We have found this good practice across the school" (Primary headteacher).

Another teacher described visits by teachers from other departments to watch formative assessment approaches in action.

I've had teachers come in certainly from other departments, and they get the flavour of it from watching. One said it was what I call the "Eureka factor". I think pupils should struggle. My classes know I think they should struggle. That what they find out for themselves is much more worthwhile. So I think R was the last person – a home economics teacher – ... she said what she noticed was the feeding of the pupils without answering them, the prodding, the hands up in the air as one group after the other got it. And I do think that is part of formative assessment. The freedom to discuss with me, the freedom to discuss with each other, and the fact that the learning's always joined up (Secondary teacher).

Using resources

Some teachers referred to the ways in which they were using particular resources to support the development of formative assessment ideas in other classrooms and schools.

...the video material that we made throughout the whole project will be used for staff development, different training purposes.
(Interviewer) Have they been enthusiastic about it?
Yes (Primary teacher).

Others spoke of the impact that video resources had in helping people appreciate the power of formative assessment in action.

I mean, we saw clips of videos and people in schools doing things that you thought, "Oh my God, that's awful". And that was sort of before, and then you saw the after and the difference. You just thought, "Wow, that's amazing!" (Secondary teacher).

Time for discussion was also an important resource. A number of interviewees in both primary and secondary schools described how they had created opportunities for teachers to talk through ideas and to discuss issues arising, believing that this was crucial to the project's success.

.... the support would allow staff time to get together for regular discussions on how it was going and evaluating how the pupils were getting on. That took up a lot of the time. So, to do it properly, that would still need to be ongoing (Primary headteacher)**.**

There was some caution about the use of resources and a concern that constructing a resource might become a substitute for personal contact and discussion with damaging consequences for AifL.

We've proven that within the Authority, that the best way is for people to come and see it. If you give out a… I was very, very strong with the Authority and said to them, "You cannot just take our work and put it out to the schools on a CD Rom and in a folder", 'cause it will do exactly what I've done, it'll just land up [on a shelf] (Primary headteacher)**.**

Using systems

Other school managers and teachers described ways in which they were using school systems, such as management structures and self-evaluation or monitoring arrangements, to support the growth of formative assessment in their schools.

Primary teachers most commonly made reference to the importance of the school as a whole:

… I think it's up to the school to support and spread that as well (Primary teacher).

In secondary schools, whilst support from senior management was important, helping to grow the programme on a practical day to day basis was seen more often to be the role of the principal teacher -

I think that there is a serious role for someone managing the curriculum, the learning intentions, the feedback, the general mood of a department. I mean, that maybe sounds silly, but I am so totally sold on it (Secondary principal teacher).

A number of teachers spoke with enthusiasm about their future plans for developing and growing ideas on assessment to support learning, using the departmental system to achieve a common approach. One suggested that s/he would like …

…to make sure that the learning intentions are absolutely specifically clear and being transferred to the pupils. Shared with the pupils. They have a copy of them. I would like to see the school tests being much more a reward for joining in to find out what's going wrong and improving on it. And that would mean, as a department, we'd have to agree on the learning intentions that we're going to share with the pupils, agree on whatever it is, the types of tests, how we're going to tackle it after homework. But it really has to be in place in writing as part of your everyday work, every course, to keep people on board, remembering it (Secondary teacher).

One secondary headteacher described how he

… asked each department to tell me which strategies they thought they were using and were quite well on with, which strategies they thought that they were really just putting their toes in the water. So I can give you a picture of that … I can say that everyone, every department, is engaged in some of these projects of formative assessment (Secondary headteacher).

4.4 Growing formative assessment more widely

Participants in the formative assessment project were well aware that sustaining the practice of formative assessment meant more than keeping existing teachers and

schools involved. Sustaining it meant growing it in schools and education authorities across Scotland, embedding the ideas in educational policy and practice for the longer term.

Capitalising on the experiences of pioneers

The teachers who were interviewed in the project tended to be aware of the education authority's strategy for wider dissemination of formative assessment to the extent that it was using their experience as pioneers. Some education authorities had used pioneers in a wide range of staff development events. By far the majority of teachers who had been involved in helping to grow the programme in this way spoke very positively about the experience, often commenting on the impact on their own confidence and self esteem of being part of a development team. However, some expressed doubts: these are indicated in section 4.5. "Meeting the challenges - teachers' views".

Well, within the school itself, all the members of staff have taken on certain areas of the formative assessment - different strategies they've been trying out within their class - and it's been very positive feedback from them. R. and myself have been out to a number of in-services in the area. We've given an in-service to specialists so that they could develop it in their area of art, PE, and music. I've also been along to a local primary school where secondary teachers came in - The Building Bridges project. So I've been along to speak to them about the formative assessment through language. So the Authority have been trying to roll it out ... We've even spoken to headteachers as well, which was I think the most terrifying one of the lot! (Primary teacher).

One teacher who had been involved in action to encourage others to use formative assessment suggested that giving people actual experience of it was a very powerful strategy.

I think they need to see it in action and ... the in-services that I delivered ... I tried to make them very practical workshops, so that, in a way, the people there actually became the pupils, especially the Local Authority in-service - it was all headteachers and I think they really loved that. So I actually had them as the pupils ... so I was trying to show them, you know, and to make them feel that panic where, if you thought you were going to have to give an answer, you would certainly think, you know... Because nobody likes to be put on the spot (Primary teacher).

Teachers' awareness of their own growing confidence in a staff development role is apparent in the following quotation.

We went and spoke at a couple of headteachers' conferences...one down in G. and then to our own headteachers...and you suddenly start to have this, oh I can do this, you know, I am a good teacher, I can do this. ... whereas before you've always been in a kind of, I mean, it's the whole Scottish thing of nobody takes a compliment, you know, you're all sort of down on yourselves. I think just being involved and made to feel a valued professional, it did have a good effect on me (Primary teacher).

4.5 Facing the challenges - teachers' views

In describing what mattered in encouraging people to become involved in formative assessment, as indicated earlier, teachers and headteachers made reference to the honesty and openness of the programme. They perceived that it was important that the project did not pretend to have all the answers or to be simple and straightforward. Honesty and openness were similarly perceived to be important as the project grew, pretending that all of the problems of assessment in schools had been resolved would, participants believe, be a mistake. As the programme grew, it would be important to continue to identify and to address issues as they emerged.

In describing their own initial involvement in the project and the reactions of colleagues, others identified several types of difficulty which may be significant issues in attempts to grow good formative assessment practice.

Lack of initial clarity

Some interviewees wished that their initial introduction to formative assessment ideas and their aims in the project had been made clearer. It had, of course, been a principle of the formative assessment project to encourage teachers' own thinking about learning, teaching and evaluation of and responses to pupils' work. However, at least in some cases, participants might have benefited from some clearer direction on the aims of the project as far as their classroom activity was concerned.

Nobody had any idea even after the first two meetings, I would say. You know, they just kept repeating that, "Oh well, it's up to you to find out and it's up to you to choose what you want to do". But we've all said that clarity at that point would've been useful. You know, we were very kind of, "What are we doing?". And it's only now that I feel that I actually know what I'm doing (Secondary teacher).

I think the only downside for me was going to the seminars and not quite understanding. You know, it took me slightly longer to realise what I was supposed to be, you know, aiming for (Secondary teacher).

Seeing it as additional work, of doubtful value or too experimental

Well, I think certainly other people are seeing it as additional work. You know, perhaps the initial modification of the techniques to suit their subject, but once that's in place I don't think it's… it's not additional work. It's easy (Secondary teacher).

In the following response, the teacher recognised among as yet uninvolved colleagues a concern that arose several times in the interviews (though there were cases also of teachers denying that it had been a problem for them in practice) - the idea that formative assessment uses too much time and may hold back course/curriculum coverage.

… I think that is one of the things that's stopping the department from coming onboard. The fact that it's going to take longer. Because I think, from what P and I have shared with the department, the thing that they have realised is that it is actually time consuming. And what we're doing, they saw the amount of work we put in and they saw us getting a little bit behind the course with our classes, and they just felt,

"This is a big risk. I'm not sure I want to go down that line. Is there anything at the end of the tunnel?" And before P and I say, "Yes, there is, because we have seen the light shining on their faces and seen the understanding", but could we turn round and say, "Well here's the evidence and results"? Tthat takes years anyway. I mean, I started with the first year class, they're still only in third year. It's only just over... two years since we've first even dabbled in this (Secondary teacher).

A number of teachers expressed their surprise at how challenging it had been to convince colleagues: some people appeared to be rather tentative about involvement.

We'd like to get the department involved ... I think you asked me what's been good. I think that's something that's been much more difficult than I thought. I thought the department would come on board quite quickly. They are waiting for evidence of something convincing, that it's worthwhile. Some more than others. And I could enthuse them, I know that. I could get really worked up about it, but I think I'm holding back because I think I need a little bit more experience myself in the classroom (Secondary principal teacher).

A similar point came from a primary teacher.

I just hope that other people see the value of it and pick it up themselves. But it's how you get through to those people (Primary teacher).

When asked if there was a perception that formative assessment strategies were time-consuming, one teacher suggested that the problem was one of modifying existing assessment resources, rather than the use of formative assessment techniques in the classroom.

No, it's the resources. I don't think the techniques will take any time. It just means again, alteration of the homework book, 'cause I liked using those booklets and I felt as if it gave me the revision tool but also they were able to, you know, put down beside how they felt about each question... I'd need to adapt them obviously for new content and stuff. So that's something that will take a bit more time (Secondary teacher).

Another kind of concern was related to the view that many teachers lack confidence to try out experimental approaches.

But there are also teachers who are not confident about the kind of challenges, because it's new ground, it's experimenting in the classroom. Clearly nationally you met people who were full of enthusiasm, but ... we clearly have some teachers who are not comfortable with that and they need additional support, because they're not the types of personalities who say, "I'm going to try this and we'll see what happens". ... So we've got a degree of competence across this country. But we are moving towards the way that everyone is using these strategies within the classroom situations (Secondary depute headteacher).

Pupils' desire for marks

Some teachers were conscious of the difficulty of weaning their pupils away from a desire for marks/grades, as well as formative comments, in feedback on their work (even when they had convinced the pupils of the value of comments).

I still find a reluctance of pupils to let go of the marks. They're very happy with the comments. Every survey I did – you probably saw the results of the survey – they wanted everything. ... they wanted marks and comments. That was definitely the vote. And if I do put a mark on a homework exercise then I will try and make sure there are comments as well. It's worth doing (Secondary teacher).

Primary or Secondary or Primary and Secondary

The question whether promotion of formative assessment should be separately organised for primary and secondary schools was raised by a number of teachers from both sectors. As recorded in 4.3 above, teachers' reactions were most positive when they were listening to others who worked in their own sector. There were complaints from respondents about a lack of connectedness to individual contexts when activities were organised on a cross sectoral basis. This concern was evident when teachers talked about the initial presentations from teachers in the KMOFAP project, when, in the early stages of the project, there were sharing sessions amongst teachers attending conferences. It also arose in the context of the peer support sessions when case studies from individual schools were reviewed. Participants were well aware of what was being attempted, but that they didn't believe that it worked. For one teacher this issue seemed to be particularly striking when special school teachers were involved in the process.

If I might say, I think there was a mistake by the high-heedjins who arranged it. I can understand what they were trying to do, but when we had our de-briefing session ... in October, we were asked to de-brief a computer department project and our project was de-briefed by people from a primary – basically a special needs school. And although we were interested in the principles, it wasn't immediately applicable. Now I can see where the organisers were coming from. Formative assessment is about principles, it's about procedure, and it should be cross-curricular. I understand that. But in the end, teachers are more interested in something that is reasonably quickly applicable to what they're doing. They're always looking for material. If you start where teachers are, if you start formatively assessing your teachers, thinking, "Why are they not getting involved in this?". If you go into their mind, they're thinking, "I want something that I can use with my classes. Yes to improve their education, yes to improve their learning, but I don't want to go and dig for it. If I were to take something from another discipline and re-write it for mine, I don't have time to do that, 'cause the exams are around the corner". And I think I would far rather have had a maths clique – it sounds absolutely awful and I know that's what they're trying to avoid. "What've you done in a maths class, and what've you done?" Because we do meet our colleagues in school from other disciplines all the time, we chat over things, and that takes place already. I think if we're going to move things forward… So I feel a bit cheesed off that we didn't see other maths projects, but hopefully they'll be collected together and put on the Web and we'll be able to get hold of them. As with ours, we're hoping that ... The teachers that reviewed ours said it was very interesting, but it was absolutely useless to them, 'cause they're dealing with children

who can't even read one word. Special needs school. And I have to say, "Well…"
(Secondary teacher).

The issue had clearly been debated within at least one authority.

I made the argument that it has been approached in a generic way for long enough, that it's time people got the chance to speak to other subject specialists like myself. So, luckily, that's been taken on board and D's going to have something in September where, instead of more of the generic secondary and primary together, which actually, I don't think works… nobody feels they're getting the full quota, we're actually going to tackle a subject specific workshop (Secondary teacher).

Even when teachers had tried to contextualise staff development work with colleagues, the problem continued to arise. They recognised a need for teachers to develop formative assessment in their own subject context.

… whereas, when I delivered the in-service, it was obviously cross-curricular and, although I tried to do my best… I went and got materials from home economics and tried to show how this could work … I think people have to try it for themselves and some people just are never going to be willing to do that (Secondary teacher).

Perceptions of the scale of the dissemination task

Most commonly, respondents raised concern about the challenge they envisaged in growing formative assessment with teachers whose practice was very different from the principled approaches they had developed in the project. One teacher summed up feelings that were expressed by a number.

…. while I've been enthused at all the conferences I've gone to – 'cause they're basically preaching to the converted – it began to worry me if there weren't more people out there that were going to come on board, 'cause maybe you've got all the people that like this style of teaching first anyway. They volunteered … I thought they would come rolling on board, they'd be so interested in what we were doing that it would be quite easy. The trouble is I suspect they're the ones who are more sceptical, more cynical about the process… (Secondary teacher).

A related theme was the challenge of scale, the relatively small number of teachers in the initial phase of the programme compared to the large numbers across Scotland whom the programme would have to reach. This teacher was, however, strongly commitment to tackling this particular challenge.

Well…. there's only, what, 40 or 50 teachers here and an awful lot out there. What are they doing? And looking back with hindsight, I suppose it's inevitable, the ones who will show enthusiasm and willingness are the ones most likely to be willing to change. … The ones who are not will not be the ones who volunteer in the first place and it will be that bit harder to get them in. And I think we have to be patient. Be patient. 'Cause if we really believe it then it mustn't die (Primary teacher).

However, although individual teachers were commenting on their own experiences of becoming involved in the formative assessment project, there were many teachers who were not volunteers, for example, some perceived themselves to have been identified for the project following an HMI report that had highlighted assessment as an area for development for their schools, some arrived on the first day of the project thinking that they were attending a single day in-service on assessment and others were unsure of what the project was about, having been asked to attend a meeting following a chance meeting with a member of the school's senior management group in a corridor. This is an issue that we will return to in Section 6.

The doubts mentioned by teachers who had been involved in staff development events (see 4.3 above) are relevant here. Not all of these teachers felt that sharing their experiences with other teachers in other schools had been entirely positive. When asked if spreading the word amongst colleagues was quite difficult, one teacher commented:

Unfortunately, yes. Well, it is difficult, but unfortunately both within the school and at Local Authority level I've delivered in-service on formative assessment (Primary teacher).

Another cautioned that, although listening to teachers worked with some, there were others who as yet remained untouched by the ideas, sometimes because they had not enough interest to choose to attend a staff development event focused on formative assessment -

They've given us opportunities at in-service days to speak to the teachers who were interested and there was good response to that - not 100%, but those who wanted to come, came (Primary teacher).

A primary teacher spoke of experiences going out to different schools to talk about that was happening in an attempt to encourage continuity of experience for pupils. It is notable that she indicated some doubt about the efficacy of that strategy alone.

You know, a lot of them came up and spoke to us and seemed very much in favour of it. All very positive about that. That was a year ago. And we have been out to nursery school…. It's okay us going out and speaking to people but as we all know, there's so many people come out and talk about this and talk about that, you know, I just hope that something [changes] within their culture (Primary teacher).

There was some evidence to suggest that being a prophet in your own land may be harder than working with people in other contexts, other schools or other education authorities.

We're kind of out on a limb here in school x because people think, "Och, it's okay, it's school x. They can do this because it's middle class, and it's this and it's the next thing.". And so … we've had actually more interest from people outwith our authority than we have from our own authority (Primary teacher).

A small number referred to the demands made of teachers who were involved in growing the programme.

I think we're at a point now where it's the authority's responsibility to do it and that the girls are… It's too onerous a time for them to kind of do the same thing over and over again, you know. And we've had quite a few visitors. So I think the authority should be producing something in a pack that they can use within their schools (Primary headteacher).

This particular suggestion of producing a pack may be an inadequate strategy for effective growth of formative assessment across all the schools in an education authority - there is some discussion of what is known about effective change strategies in Section 6 - but the pressure on teachers asked to play a significant role in staff development across an authority is a real concern in some cases.

Developing full awareness of formative assessment - strategies and ideas

For some teachers some formative assessment strategies remained untried. It was hard to be clear whether this reflected a view that formative assessment was simply a series of strategies from which teachers could select one or a few.

I've certainly adapted the homework when I feel it's appropriate and the listening technique all the time – that's something that goes on all the time – and one or two other things. I've never got into the traffic lighting yet, but P's done that (Primary teacher).

Other teachers appeared to be concerned about the appropriate age or stage when strategies might be introduced or with potential difficulties in adapting particular approaches for, e.g., very young children.

Maybe toward the end of primary 1, but I think in the early stages of primary 1, traffic Lighting. [We'll] see how that goes and see how we get on with that. And I even think with the wrong answers as well, you could start to do a little bit on the wrong answers, you know, with their maths or their adding up. … "Right, you've got the answer. Let's go back and check". It's not going to be obviously on the same level. You're not going to get the same amount of interaction, because they've not got the vocabulary. So in my head, I'm going to be doing some of these strategies with the children (Primary teacher).

There were numerous examples in the responses to demonstrate that, when teachers spoke of growing formative assessment, they meant introducing particular strategies. They often described growth of formative assessment among their colleagues as increasing the number of strategies in use. One teacher reported:

Virtually all of them I think have dabbled in the homework without marks. Thinking that the next thing to do would be to talk about these listening techniques - waiting time for questions – because I found that helpful and that would be a very simple thing for everyone to try out (Secondary teacher).

Another made reference to formative assessment being built into the school's development plan, but again growth was described in terms of increasing numbers of teachers using particular strategies, with little reference as to why.

Last February we had an in-service and we talked to all the staff about what we'd been doing and quite a few staff took strategies on board. They were just about to run with it last year. And then this year it was part of our development plan, so we all had to choose a strategy that we would like to work with and try with our classes (Primary teacher).

There were some schools where formative assessment was contextualised in wider educational ideas.

And so we're happy to share anything but … what we're doing is actually only the basis of good teaching and learning. It isn't anything that is rocket science or anything that is totally different. And what we've said to people before is, "We're happy to give you any support you like. You can come and see. But you can't take what we do and just do it in your school". So from that point of view, the package is not a good idea. … You've got to make it your own (Primary headteacher)

If some teachers were separating strategies from ideas, missing out the thinking about why they are using particular approaches, then the approaches themselves may become little more than tips for teachers, unlikely to lead to the positive changes in learning that are central to the AifL programme**.** These teachers may have lacked an appreciation that, fully understood, formative assessment means consistently stimulating and responding helpfully to pupils' thinking, perhaps using particular strategies, but also more generally and flexibly in the course of all teaching.

However, it is also possible that, when they referred to strategies, teachers were using a kind of shorthand for significant changes in their whole teaching style which had had major impact, such as more active learning by greater numbers of pupils.
If this use of the term strategies as shorthand amongst teachers who well understand the underpinning ideas is indeed the reality, there may be another kind of problem. They risk suggesting to new colleagues becoming involved in the programme that it is the strategies themselves that matter, rather than an understanding that effective formative assessment is a flexible approach to pupils' thinking and work that permeates all learning and teaching.

This issue is discussed also in Section 6.

5. AifL Education Authority Co-ordinators: What Matters?

In this section of the report we reflect on the experiences of a group of education authority (EA) co-ordinators. The post of EA co-ordinator is one intended to provide a link across schools and between schools and local and national policy makers. Six co-ordinators were interviewed from EAs in different circumstances, small/large; largely urban/largely rural/mixed urban and rural. Most of the EA co-ordinators (5) interviewed had no previous involvement in formative assessment initiatives before becoming involved in the AifL programme. Two co-ordinators referred to extensive previous initiatives within their authority, although they had not personally participated. Some had, however, been involved in other initiatives that they felt had helped them in coming to terms with the AifL programme, e.g., TVEI, Learning and Teaching, accelerated learning or working with HMI.

5.1 The existing formative assessment project

Involving schools

Education Authority representatives described a number of reasons for involving particular schools in AifL. Most indicated that they had chosen schools because of their knowledge of the attributes of particular members of staff working within the school.

The teachers we chose had high credibility across the school…but they were no pushovers. If they bought into it I knew it would spread across the school.

Some EA co-ordinators had identified schools because of the school managers, referring to '*well disposed*' headteachers or '*new enthusiastic*' headteachers. In secondary schools reasons for choice of particular schools tended to be linked more closely to staff within departments, e.g., in one school an assistant principal teacher had recently been a staff tutor and worked in a department where there were a number of enthusiastic teachers. In one case a school had been selected because of their interest in assessment, having previously worked with Shirley Clark, and it was felt that they would be able to build on their existing work within the AifL programme. Two EAs indicated that schools had been asked to volunteer. In Section 6 we will explore some differences that emerged between teachers' and EA co-ordinators' perceptions of the reasons for involvement in the formative assessment programme.

Most EAs indicated that schools became involved fairly enthusiastically in formative assessment, particularly after the first national seminar.

They got great benefits from national seminars.

Some co-ordinators reported some anxiety amongst schools in the initial stages, e.g., in how to get started. Others suggested that some schools felt they played a leading role.

In one school we felt we had to develop the development officer…to encourage a broader view of assessment.

All EAs reported a high degree of teacher autonomy within the programme and identified a number of features as critical to that, e.g., the grant to schools; the allocation of time for teachers to think, to talk and to plan;

Once the finance was allocated to cluster groups, they made own arrangements for release/working parties.

One EA stressed the importance of the role of the headteacher, warning that

...in one cluster where the headteachers are not leading there has been little progress.

EA co-ordinators perceived that schools had received the support they needed and that communication between EAs and schools had been good.

All EA co-ordinators agreed that the grant from the Scottish Executive had been a crucial factor in the success of AifL. However, the grant had been used in different ways in different EAs. Some EAs had given the grant directly to schools to use as they wished. They reported that schools had used it to buy cover, e.g., to release teachers involved to discuss issues or to observe one another's classrooms. One EA reported that they devolved the money to schools only after the production of an action plan. Other EAs indicated that the money had been held centrally, although often used for similar purposes, e.g., supply cover. EAs holding money centrally reported more commonly that money had been used to buy resources such as laptops or projectors. Two EAs indicated that the grant had been used to fund internal and external staff development events, open voice sessions, after school meetings, and to pay people to lead groups and to research issues; another that money had been used to attend national seminars and to buy resources such as the Black Box series

Involving Policy makers

The relationships between schools and EA co-ordinators were different in different authorities. In one EA to emphasise the degree of support for the EA to AifL, the Director of Education had been very involved with the programme and had been involved in joint staff development days. In other EAs whilst the directorate were aware of the programme and supportive of its intentions there was less direct involvement in the programme itself.

Communication and Support

The level of awareness of what was going on in the classrooms of teachers involved in AifL varied across authorities and across projects. Generally there was a far higher level of awareness of what was going on within the formative assessment and gathering evidence projects than other projects within the programme. In addition, there were differences in how AifL was seen in relation to the wider work of the EA. For example, in some EAs AifL had been discussed within EA management teams as part of their work in building the EA's development plan; in other authorities AifL built from existing initiatives within the authority, for example linked to existing work on writing being undertaken with a local University. In one EA the Director had played a leading role in professional development programmes linked to AifL '*Partly*

to give the programme status'. In another EA there was perceived probably to have been little interaction between schools and the authority, partly because of the lack of a development officer being in place.

In describing the way in which schools and the EA had interacted one assessment co-ordinator indicated

Schools were invited to choose an area, e.g., school X chose listening…. I supported by visiting the schools…spending a lot of time listening and supporting. In addition to working with children, children worked with other children.

5.2 Formative assessment: making a difference?

In this section of the interviews EA co-ordinators were asked to identify whether or not they believed formative assessment was making a difference; what evidence there was from practice to support their view; and what plans they had to sustain and to grow AifL within their EAs.

All EA co-ordinators argued that AifL had been an extremely valuable initiative for schools. One co-ordinator suggested

Yes……. for example one of our schools took a close analytical look at the importance of dialogue and now they are taking this into other areas. Schools have had real opportunities to think about learning and teaching…. sofar we haven't seen dramatic results…. but we would expect to see an impact in improved engagement of previously unengaged young people…..and this has happened. We have also seen improved self esteem, teachers reflecting more effectively on their own work. For example, I heard one of our teachers say…..' Maths must be one of the most boring subjects….. what can I do about it'.

Another co-ordinator argued that both EA representatives and teachers believed in the efficacy of AifL. It was interesting to note that a number of EAs reported increases in attainment.

Already attainment is improving. There has been clearly observable progress in Level A achievement in a P1 task after formative assessment had been tried out with them …this was also true of a secondary school geography class. Formative assessment encourages talk… relearning and improvement. It deepens learning considerably, achieves learning intentions and improves the quality of discourse.

We have lots of evidence from videos of classroom work, observations, discussion. …. we have a wider range of children engaged and classwork has improved even in one of our high attaining schools. AifL and Building Bridges have led to improved 5 - 14 test results at Primary School X and Secondary school Y.

There is a real buzz about EAx about formative assessment…there has been disappointment about recent attainment information and there is a belief that this (AifL) will link to increased attainment and that makes people enthusiastic.

One EA co-ordinator made a distinction between attainment and achievement.

AifL has had a big impact on schools in terms of enthusiasm of all school staff <u>and</u> of children……they " fed off" each other in classwork. Teachers felt that although they covered less in the curriculum this was more than compensated for by improved quality of the children's learning experience. One class teacher said to me that pupils learned science better and had much greater self-esteem …and that included pupils who had had no interest in science before. It's too early to say…but I think that overall achievement will improve…. even if the results don't improve…learning, teaching and achievement will be much better.

Another echoed this sentiment indicating

for example…one APT maths was worried because there is so much in the curriculum and she was afraid that she wasn't going to get through all of the topics…she did and then spent far less time on revision…the children had learned more deeply.

Co-ordinators also made reference to changes in the levels of enthusiasm in classrooms involved in AifL

When the teachers speak to you about what they are doing…they are really switched on…it's not that it is not challenging…you should see the way they are looking across the curriculum…but the classrooms are buzzing…the children are so enthusiastic.

All EA co-ordinators also believed that the changes they were witnessing in classrooms were likely to be sustained**.** When discussing one of the schools involved in AifL a co-ordinator said….

Both teachers say it has changed how they teach, how they talk to pupils…. the questions they ask….. the way they help pupils' thinking to develop. The feedback to them from the children has been a really powerful influence….

One co-ordinator added that

…. but it is my job to make sure that it is built and sustained across the authority.

What is happening in practice?

Co-ordinators identified a range of practices that they regarded as characteristic of good formative assessment practice in schools. Key ideas emerging from across co-ordinators related very closely to characteristics identified in Black & Wiliam's (1998) original review. For example, co-ordinators highlighted the centrality of openness about learning, greater sharing of learning intentions and criteria for success, an increased awareness of working with pupils and encouraging independence, of the importance of discussion and feedback as part of learning, of seeing assessment and learning as integral to one another. One co-ordinator suggested…

It's not intensive…it all seems part of a natural process. The assessment process is positive, non-judgemental…. whereas marks can seem like criticism, even when it isn't. Part of the success of the programme is teachers' enjoyment of it…doing things as part of daily practice…. that interests teachers greatly…. and having the chance to talk to other teachers about it. Learning outcomes are shared…and that reinforces

ideas of autonomous learning in pupils…. which often gets knocked out of pupils after the early stages.

Another suggested
Learning intentions are shared….. I see quality feedback in jotters…. there is considerable discussion and a sense of interdependence of teachers and pupils….. in fact it is hard to distinguish between formative assessment and good learning and teaching.

There was also a significant emphasis across EA co-ordinators on the importance of changes in how it felt to be in the classrooms. One co-ordinator described it as a *climate of success for all….* another suggested that there were. …improved *relationships between pupils and amongst pupils and teachers…* and another that there were changes in control… *both teachers and pupils seem more in control of learning.*

Reflecting on her personal view of really good formative assessment one EA co-ordinator suggested….
…it is all about learning…building on research…not only Black & William but also brain research…Jensen, Gardener…the learning revolution…..it is about achievement…self belief…understanding more about what is going on…and other people's expectations. Good formative assessment involves teachers thinking about what children are going to learn…ensuring children are involved in the conversation…having clear criteria…really good feedback…not only teachers…but also pupils through self and peer assessment…reflecting on learning…everyone is involved no-one is passive.

She concluded…
Learning, teaching and assessment are all together… it is impossible to separate assessment from learning…but there are some teachers who find the changes hard…I wonder if they would still like gas lighting.

5.3 Beyond the first phase: sustaining and growing

All EA co-ordinators argued that it was very important to sustain the momentum that they felt had been built up for the AifL Programme generally, particularly in the area of formative assessment. A number of co-ordinators made reference to a.. *general buzz around formative assessment..* and acknowledged that this was not a common feature of innovation in schools. One co-ordinator stressed the importance of AifL as a unifying programme to draw together key features from what were perceived by schools to be multiple initiatives.

There was a strong commitment to grow AifL in schools across each EA but co-ordinators identified a number of challenges they believed that they would have to face as the programme extended. Some saw challenges in extending the programme across curricular areas, particularly in secondary schools
It seems to be easier in certain curricular areas – it does apply across the curriculum if you are creative. The theory is difficult for some people…but….they need to give it a go.'(EA1)

It is valuable throughout the curriculum…..though perhaps harder in some of the secondary specialisms…although this may be partly because of attitudes. (EA2)

Many schools now involved in particularly English departments, some maths and science and some Home Economics…. not much Social Subjects interest as yet. (EA3)

There was a strong commitment across EAs to make the programme work
Every classroom in EA x will be involved in this… I'm not saying that will be easy…there are worries out there…people say it is easier in Language, yet there are schools who have taken it on in Maths and Science.

All EA co-ordinators had clear plans for the future of AifL within their authorities. But there appeared to be quite different models of development being planned in different EAs. All EA had AifL in their service plans and therefore in schools' development plans. All EAs were providing a range of support strategies for schools. For example, staff development days were common across EAs, some involving key speakers, often from England, others using external consultants available through the LTScotland. Some provided resources, including research based booklets, such as The Black Box Series. Some EAs were trying to engage people on a voluntary basis. One EA had identified four key principles and had invited teachers to opt in to staff development events.
Our four key principles are related to learning intentions …quality questioning…. quality feedback and self and peer assessment…we have a waiting list for courses but the number of teachers involved in still relatively small….. Our development officers respond to requests for help but they are not getting into secondaries as much as they wish. Primaries have adopted formative assessment and we have pockets of excellence in secondary schools.

Another EA was attempting a mixed economy of aspects of choice for schools combined with an obligation to be involved in certain activities
The schools themselves have taken AifL beyond the original staff involved It's also in EA Service Plan and therefore in all schools' development plans; some schools are trying particular strategies in a particular area; others are developing AifL more widely. We have 12 clusters from Area Support Groups 6 with a focus on formative assessment, 3 on personal learning planning and 3 on sharing the standard.

One EA had identified 2 primary and two secondary teachers per cluster, making it clear that these teachers had been identified because they were regarded as strong, credible practitioners who would be in a position to support other colleagues. These practitioners then
…had 2 days training, then plans were made for them to work co-operatively teaching within their cluster. This was backed up by one general assessment day for all staff and workshop for Headteachers. All our schools are involved to a greater or lesser extent.

All EAs reported a strong level of interest in primary schools for formative assessment, some making specific reference to support for it in special schools. Some education authorities reported an increasing level of interest in secondary schools.

Almost all of our secondary schools have taken up the invitation to promote formative assessment in some way.

All education authorities saw AifL as a major priority. Some indicated that they saw AifL as central to their wider teaching and learning aspirations and this integrated approach was their main development priority. All stressed the importance of support from SEED, support from EAs, having the programme within school plans. There were also clear indications that for the programme to be sustained and to grow there would have to be a clear articulation with quality assurance processes within the EA and with national policy groups, such as the Scottish Executive and HMI.

Within three years all schools on EA x will have formative assessment as a priority. We run twilight sessions, inset days, respond to requests from schools…all schools have been asked to put this into their development plans.

We encourage schools to think about the research, the AifL strategies…particular areas have been focussed questions, feedback, self- and peer- assessment and pupils as researchers in schools. It isn't all easy though…

AifL has been a real priority here…the SEED money has been really helpful in supporting the development but it is moving into a different phase…developing and sustaining are two different things…to sustain this we will need the QIOs involved…in EA x I have run INSET for them…the schools need to be responsible for what goes on…but AifL needs both support and monitoring I think…it will go if SEED support stops. To work it (AifL) needs to be both top down and bottom up…within school plans…in the EA plan…in the national plan…it needs to be supported as it develops and it needs to be monitored by QIOs.

5.4 What matters in growing assessment for learning

In this section of the interview EA co-ordinators were invited to reflect on their past experience in working with schools involved in the formative assessment project within AifL. They were asked to identify what features had been important in their view in helping to embed formative assessment, where it was perceived to have been successful, and what had acted as a barrier where it was perceived to be less securely embedded in practice. Some EA co-ordinators commented on AifL beyond the formative assessment project and these comments have also been included in this analysis.

As all EA co-ordinators had said that they believed AifL had had significant success in their authorities, they were asked to identify what, if any, factor they believed to be of greatest importance in that process. Five of the six EA co-ordinators believed that the visible valuing of the project by education authorities had been crucial. One EA specifically referred to the role of the Director: the fact that he was alongside the project gave AifL very high credibility in schools. Three EA co-ordinators argued that the appointment of a development officer within each EA was critical. All three argued that having a person who had specific responsibility for AifL meant that the programme did not get lost amongst the myriad responsibilities carried by many EA personnel. Two EA co-ordinators referred to the importance of the programme's clear focus on improving learning and teaching and three suggested that the devolution of money to EAs allowed the development of tailored approaches designed to meet the

particular requirements of individual authorities was vital to AifL's success. One EA co-ordinator suggested that the opportunities for sharing across different groups, teachers and co-ordinators were extremely important. Finally, one co-ordinator argued that the most important role for EAs was yet to come; to develop AifL in schools across the authority.

When reflecting on what they believed had really enthused teachers about the AifL programme co-ordinators suggested a range of factors. All co-ordinators referred to the importance of the combination and the interrelationship of research, policy and practice. For example, one EA co-ordinator suggested that
It was a combination of the conferences, high profile speakers with links to actual classroom work. The fact that it was research based practice gave it credibility rather than good ideas from SEED. It was important that people had explanation about why things should be done rather than the too often….. this is how to do it.

Another added
The research background, the practical focus and the high national and EA profile of AifL…these were all positive factors.

One EA co-ordinator made reference to the CD of Dylan Wiliam as a good way of having teachers encounter ideas first hand rather than through a paper report of a presentation.

Another feature regarded as crucial by all co-ordinators was the focus on children's learning and teaching and the opportunity for teachers to try things out, to take ideas and develop them in their own classrooms. As one EA co-ordinator suggested
It was clearly all about learning and teaching and in a sense curriculum free – you could go in to it and do something different.

A further dimension identified as crucial to the formative assessment project's success was the opportunities for networking, for discussing issues, for sharing problems and anxieties and for recognising success as the programme developed. These opportunities for sharing occurred in a number of ways throughout the project and all appear to have been regarded as valuable. For example,
The Assessment co-ordinators meetings were really valuable…they were a bit bitty at first…perhaps because there were too many projects…. but they became really useful (EA1)

The national conferences were great for networking …and for reassurance (EA2)

Enthusiastic staff inspired others…(EA3)

There was a very powerful conversion effect and the staff got a lot out of the sharing of practice. (EA4)

…. the opportunities to talk to lots of different people…the teacher networks…these were all great…and teachers inviting other teachers to schools…(EA5)

Several co-ordinators also referred to the importance of the support of particular people or groups. One highlighted the strong support given by a staff tutor, another the exceptional support offered by the school co-ordinator, another praised the support offered by the national development officer and one referred to the central role of a headteacher. One EA spoke of the importance of the EA team as a support network. The common theme was that people found support from a wide range of sources but that the feeling of supporting and being supported was an important feature.

A further feature identified as important was the momentum that built up around formative assessment. As one co-ordinator suggested
…the fact that the project was successful…news spread quickly…. that was really helpful…

Finally, the wider context for the innovation was seen to be positive. AifL was seen to be a principled programme.
The focus on improving learning rather than developing the curriculum was important and very timely, fitting in with many current research themes…

It was recognised also as a principled position shared by researchers, policy makers and practitioners

Another key factor was that people at the national level gave permission for something the teachers wanted to do anyway

It was also suggested that the clear relationship between principles and practice differentiated this programme from others that had preceded it.
The wee ladders techniques were valuable to support what really is a profound change in pedagogy.

Co-ordinators argued that the combination of factors would be crucial to the long term sustainability of AifL
- practical support from the policy communities (educational and financial)
- research evidence as part of the process
- the real and practical engagement of practitioners
- the recognition that no community could work alone and expect to achieve the success of AifL.
-

One EA co-ordinator suggested
Perhaps the most important thing we have learned is that we can't do it for teachers and we can't do it without them.

Another argued that
….. the local teacher always has more impact…. the most important ingredient is when class teachers recognise that formative assessment actually makes life easier, …makes the classroom happier…and actually works.

One EA suggested that the positive impact of formative assessment on the teacher's life would be a key factor in engaging secondary schools…

We need to publicise the positive things…less marking…better behaviour…increased motivation…better ethos in the classroom…it's reaching the learners…now teachers enthuse other teachers.

Most EAs had made use of teachers involved in the first phase of AifL to enthuse new schools and teachers coming into the programme. Some pioneers had shared their experiences in their own schools; others had been involved in working with other schools; some had involved pioneers in EA professional development for teachers and headteachers; and there were examples where EAs had involved pioneers in making videos of their experiences.

All EAs perceived these teachers to have the advantage of having strong credibility. Pioneers have been very good at encouraging headteachers to take formative assessment forward. They were very open about explaining that teachers may lose The order of very didactic experience, but that the advantages were worth it. They made it real and credible.

EA co-ordinators at the point of interview were still unclear about how successful they would be in sustaining and growing formative assessment in their own authorities. Some EAs were relying heavily on the EA co-ordinator; others were in discussions with local education committees. All were aware of the potential dangers of AifL becoming simply one more priority amongst a plethora of others.

We are aware that the authority resource base will not grow much and that it will be necessary to manage workload, make choices, prioritise.

The future success of formative assessment was also perceived to depend on factors beyond the programme. In particular, co-ordinators made reference to the importance of consistency across a number of areas. First consistency within schools and between schools and EAs would be important.

The schools become really important…headteachers…principal teachers…school clusters…and building it into what the EA does…

Secondly, co-ordinators perceived that consistency between AifL and quality assurance systems would be crucial.

QIOs are really important and monitoring from others eg HMI

All EAs suggested that the success of AifL was due to the inter-relationship of a number of variables, all of which mattered. The key was the flexibility within the system that enabled the programme to be adapted to individual circumstances.

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.

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APPENDIX 1

INTERVIEW QUESTIONS

Questions for teachers

Preliminary information

Primary or secondary?
Subject/curricular area(s) in which you developed formative assessment in Project 1?

1 Based on your experience in Project 1, what does really good formative assessment look like?

2 What convinced you that these activities were worth trying out in the first place?

3 What convinced you that they were working in your classroom?

4 Are there formative assessment activities that are particularly relevant to the subject/curricular area(s) you worked in, or do you see them as relevant across the curriculum?

5 What have you learned from your involvement in Project 1 about learning and teaching?

6 What helped you to develop new formative assessment approaches - and to sustain them?

What was useful and effective about the roles of:

"experts" and practising teachers who contributed ideas and accounts of practical application elsewhere?

the published research relating to these matters, eg, arising from the "Black Box" studies by Black and Wiliam

the development officers associated with Project 1?

colleagues involved with you in the project?

school management?

education authority staff?

7 Are there aspects of formative assessment which you wish to develop further in your work?
What support would be helpful?

8 Were you able to use your development of formative assessment

> to help pupils to reflect on and/or discuss their learning and progress?
> to plan future learning, for the class, groups or individuals?
> to provide information for parents about their children's progress?
> to involve parents in helping their children to learn?

Please comment on ways in which it would be possible to use formative assessment information to achieve these purposes.

9 Do you think that what convinced you about the value of formative assessment would convince colleagues?
What steps do think are necessary to persuade colleagues of its importance
> by management in your school?
> by the education authority?

10 If you have been involved in activities to disseminate good formative assessment, eg, through presentations or workshops in your school or at events organised by the education authority, how did you feel about this involvement? A useful experience for you? For your colleagues? What is the best way of using the experience gained by the "pioneers" of formative assessment in Project 1?

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Questions for Headteachers/Managers in Schools

Preliminary information

Primary or secondary?
Subject/curricular area(s) in which you developed formative assessment in Project 1?

A - What the school did in the pilot project

1 The first phase of the Formative Assessment development has come to an end now – do you recall how you were first approached to get involved in this?
What was your reaction?

2 Have you been involved in any previous national or Authority events or initiatives in formative assessment?

3 How did you select the teachers who finally became involved?

4 Was it clear to you what they were developing in classrooms and why, or did you just let them quietly get on with it? Was there discussion between the teachers and school managers about the changes they were making to classroom practice?

5 Do you consider that what the "pilot" staff did has been worthwhile for them to commit their time and energy to?

What is the evidence that it was worthwhile?
Do you think it will ultimately make a difference to their attainment results?
Are there other good, worthwhile effects which you feel have occurred, even if it doesn't push up exam scores?

6 Will it leave lasting changes in the practice of the staff involved, do you think?

7 So has it all been a good experience for the school, so far?

B - Keeping it going

1 Did you feel that the formative assessment approaches developed in the pilot were likely to have a benefit ultimately throughout the school, or that they were not really relevant to your other teachers?

2 Did you feel you wanted to take action to ensure more of your staff developed similar activities? In any particular curricular areas?
If not, why not?
If yes, what action have you managed to take so far?

3 Did you make any arrangements for the "pilot" teachers to talk to others about it?
Did they feel they wanted to do this?
(If they did talk to others, what was the general reaction of their colleagues?)

C - Help to develop formative assessment

1 Did your teachers who were involved take off themselves at the start into what they wanted to do? Or did you have to encourage them and drive their project a bit?
Did they come asking for specific help? Was it possible for you to get this for them?
(e.g. extra time/resources).

2 If they did not ask for help, was it clear to you what help they needed? How did you provide this help?

3 What do you feel was the most important thing you did for them in the way of support?

4 There was quite a range of ideas, information and support mechanisms meant to help your "pilot" staff take the project forward (eg, development officers, EA support, school management support, national get-togethers with others involved…).
What really sparked them off?
What were the most helpful kinds of support?
What was it about this project and the help provided for it which caused them to feel that that they wanted to change their practice?

5 What did you, as a manager, get out of the range of support for the "pilot" schools?
What did you learn about how best to help staff develop and sustain really good formative assessment?

6 Given the amount of national support and resources which went into the pilots, how do you plan to make your future school developments sustainable?

7 What is the best way of using the experience gained by the "pioneers" of formative assessment in the pilot project to help others with their development of similar approaches?

8 The authority will be aiming to develop assessment for learning in all schools. What, in your experience, is the most important ingredient in ensuring success in getting teachers enthusiastic about this? What should the authority do to ensure effective growth of assessment for learning across schools?

9 What help would you wish the authority to provide for School Managers to get formative assessment practices established?

D - Assessment for learning and tracking progress

1 Some of your staff now have considerable experience of formative assessment. Can you see effective and manageable ways of using what teachers and pupils learn through formative assessment to track pupils' progress over time in a curricular area?

2 Can school summative assessments and formal national assessments (5-14, S Grade, NQ) be used effectively alongside assessment for learning?
If so, how?

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Questions for Education Authority/Relevant Managers

Preliminary information

Role of interviewee(s) in EA Assessment is for Learning development?
Who from the Authority was the link person to the Programme?
Primary or secondary schools involved?

A - Selection of schools and what they did in the pilot project

1 Have you or the Authority here been involved in any past initiatives on formative assessment?

2 XXX Academy and YYY Primary were involved from your Authority – can you recall why these were chosen?
(As volunteers?
Or as happily compliant with a request?
Or you felt this was the kind of development they needed to be strongly encouraged into? etc).

3 Was it clear to you what the teachers involved were developing in classrooms and why? Was there discussion between the teachers/school managers and Authority managers about the changes they were making to classroom practice?

4 Do you consider that what the "pilot" staff did has been worthwhile for them to commit their time and energy to?
What is the evidence that it was worthwhile?
Do you think it will ultimately make a difference to their attainment results?
Are there other worthwhile effects which you feel have occurred, even if it doesn't push up exam/test scores?

5 Will it leave lasting changes in the practice of the staff involved, do you think?

6 On the basis of your Authority's involvement in the pilot project, what would you say are the key characteristics of *really good* formative assessment?

B - Keeping it going

1 Did you feel that the formative assessment approaches developed in the pilot were likely to have a benefit ultimately throughout the Authority?
In any particular curricular areas? In particular schools?
Reasons?

2 Could you outline the Authority's thinking/strategy for further developing really good formative assessment
      (a) within the schools already involved in the pilot project?
      (b) in (all?) other schools?

What action has actually been taken so far?

3 How significant a priority is the development of assessment for learning in the Authority? How does it rate compared to other major priorities in terms of commitment of funding and management/advisory staff time?

C - Help to develop formative assessment

1 Did your schools/teachers who were involved take off themselves at the start into what they wanted to do? Or did you have to encourage them and drive their project a bit?
Did they come asking for specific help? Was it possible for you to get this for them? (e.g. extra time/resources).

2 If they did not ask for help, was it clear to you what help they needed? How did you provide this help?

3 Money was made available to support schools in the pilot project. How did the Authority use that?

What do you feel was the most important thing the Authority did to support teachers in the pilot?

4 There was quite a range of ideas, information and support mechanisms meant to help your "pilot" staff take the project forward (eg, national development officers, EA support, school management support, national get-togethers with others involved…). What really sparked them off?
What were the most helpful kinds of support?
What was it about this project and the help provided for it which caused them to feel that that they wanted to change their practice?

5 What did you, or colleagues in the Authority, get out of the range of support for the "pilot" schools and your own activity to support the staff involved? What did you learn about how best to help schools develop and sustain really good formative assessment? What, in your experience, is the most important ingredient in getting teachers enthusiastic about it and ensuring continuing success?

6 What do you think is the best way of using the experience gained by the "pioneers" of formative assessment in the pilot project to help others with their development of similar approaches?

7 Given the amount of national support and resources which went into the pilots, how does the Authority plan to make your future school developments sustainable?
8 What help do you think the authority should provide for *School Managers* to get formative assessment practices established?

9 Do you see quite different kinds of support for effective formative assessment from the Authority as necessary in primary and secondary schools?
If so, please explain.

10 What changes at national level would you regard as important to aid the process of developing really effective formative assessment in schools? At EA level?

D - Assessment for learning and tracking progress

1 Some of your teachers and advisory staff now have considerable experience of formative assessment. Can you see effective and manageable ways of using what teachers and pupils learn through formative assessment to track pupils' progress over time in a curricular area?

2 Can school summative assessments and formal national assessments (5-14, S Grade, NQ) be used effectively alongside assessment for learning?
If so, how?

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SUMMARY OF INTERVIEW FINDINGS

Summary of Key Factors in Sections 3 and 4 - Teachers' Views

IMPACT ON TEACHERS AND PUPILS

Teachers identified the following key outcomes of their involvement in the Formative Assessment project:

- Significant impact on their own teaching approaches and understanding and confidence as teachers. The following were important aspects:

  Focus on learning and the learners' ways of going about their work, rather than on "teaching" or "curriculum coverage".

  Checking for understanding a consistent feature of teaching, with development of new strategies for this.

  Development of pupils' independence as learners and relaxation of tight teacher control of activities.

  Development of new strategies for promoting pupils' thinking in various ways.

- Significant impact on pupils' self-esteem, engagement with work and attainment (with particular examples of notable improvement of low achievers' performance as measured by national tests).

SUSTAINING FORMATIVE ASSESSMENT

Key Change Factors
Teachers identified a number of key factors that they felt had influenced the changes they made in their practice:

- The integrity of Formative Assessment - the recognition that it is educationally principled.
- The sense they had that the project gave priority significance to learning/teaching at national, EA and school management levels
- They were shown practical "tools", ways of managing new practices, either through modelling by other teachers or through effective conference presentations, with endorsement of them by other teachers as successful approaches.
- 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, which were practical examples of established learning theories (eg, constructivist and

social constructivist). They did not, however, use the language of such theories nor appear to develop generalizations of their own that amounted to theorizing from their practical experience (though they did recognize 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 approaches and impact, they did not seek an "academic" understanding of it. They emphasized the importance of the ideas and strategies being presented to them in *practical* ways.

- The positive feedback they got from pupils' reactions and quality of classwork when they used Formative Assessment approaches, which led to increased confidence in their teaching.
- Increased confidence also deriving from the endorsement of the ideas and principles of Formative Assessment by academics, EA and Scottish Executive staff, from discussion of them with colleagues and from recognition that Formative assessment is very much in keeping with their own set of professional skills and abilities.
- (Evidence from one school only) Teachers had ownership of their own planning for putting Formative Assessment into practice in their particular school.
- There was a grant of funds (which made collaboration and planning possible).

Growing Formative Assessment in a school/department/cluster
In relation to growing Formative Assessment within a school or a secondary department, teachers referred to several strategies in which they were involved:

- The same teacher "embedding" Formative Assessment approaches in continuing work and extending them to other/all classes.
- Inviting volunteers to join a group of staff already using Formative Assessment.
- Working in one another's classrooms and sharing ideas about practice.
- Agreeing systematic departmental approaches, eg, consistent sharing of learning intentions, ways of assessing, responses to homework… Or, a systematic school management approach, asking departments to report on their Formative assessment practice, well-established and/or just developing.
- Use of resources such as video and time for discussion to talk through ideas.
- Talks or discussions across the schools in a primary "cluster" to try to ensure comparable approaches in all.

They also highlighted the importance of teachers and school managers addressing problems which arise - listening to those involved and taking action on their concerns. Three types of issue were mentioned:

- Time for planning, discussion and collaborative support.
- The need to allay concerns about "accountability" - fears that HMI or EA or school managers would regard Formative Assessment as some kind of wasted time, not addressing "accountability" priorities.
- Falling behind with curricular coverage while engaging in Formative Assessment, a concern linked to the previous one. (However, this did not

emerge in practice as a problem in teachers' accounts of their work in the project.)

Growing Formative Assessment in the wider system

Teachers' views about approaches to growing Formative assessment in the wider system included the following key points.

- The important role of schools already implementing Formative Assessment, capitalizing on the experiences of staff involved. Some teachers spoke positively about the value of hearing about the ideas/principles and practice from other teachers. (There was, however, another angle on this use of "pioneers" – see Facing Challenges, below.)
- The importance also of action by PTs, HTs, EA staff to manage effectively the conditions for promoting Formative Assessment.
- Being part of a development team is likely to be an important success factor for staff who become involved at later stages of the growth of Formative Assessment across the system.

Facing Challenges

Teachers also identified barriers, difficulties they had themselves faced or they were aware of in interactions with colleagues not yet involved. They argued that facing the challenges honestly and openly would be important to avoid underestimating the complexity and difficulty of growing Formative Assessment effectively across the system. Problems/challenges they mentioned included:

- A sense at the start of their own involvement that they did not get a clear idea of what they were aiming at or trying to do, because of the emphasis in the project on teachers finding their own approaches, strategies, ways of working.
- Some elements of "extra work", such as adapting existing "assessment resources" (eg, homework books) to allow teacher and pupil to write comments; "extra work" foreseen as a likely perception of many teachers as they are introduced to Formative Assessment.
- Pupils' reluctance to do without marks/grades and receive only comments on work.
- The difficulty of convincing colleagues not yet involved of the value of Formative Assessment, of getting over their tentativeness in reaction to it. Some "pioneers" found influencing others difficult and recognised a large gap between the practice of those doing Formative Assessment and others (which, in some cases they related to scepticism and cynicism on the part of the latter).
- The problem of scale – some teachers were conscious of the fact that, despite the strong commitment of those involved in the project, very large numbers of other teachers were not yet practising Formative Assessment effectively.
- Problems in cross-sector or cross-curricular collaboration and discussion of Formative Assessment, because, though teachers

recognised that the principles had general validity, they felt that such collaboration did not help them best to relate the ideas to their specific school situation. They felt there is a need for people to try to develop Formative Assessment in their own contexts and with support from those working in similar contexts.

One other possible challenge can also be perceived in the evidence of teachers' views and accounts of their involvement. This is the issue of "(Relatively Superficial) Strategies or Deep Principles". Some teachers had chosen to use only a small number of the suggested Formative Assessment strategies and it was not clear whether they – and also 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 interaction with pupils' thinking and learning activities. Some may have referred to "strategies" 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". The effective and widespread development of "Deep Principles" of Formative Assessment is, in any case, a key challenge for the future.

Summary of Key Factors in Section 5 - Education Authority Views

SCHOOLS' INITIAL INVOLVEMENT

EA representatives indicated that most schools had been chosen because of the known positive attributes of members of staff likely to have "credibility" in others' eyes. They all reported that schools had had a high degree of autonomy in the project and that the existence of funding and the allocation of time for thinking and planning had been crucial to this. Some spoke also of the importance of evident headteacher or Director of Education commitment to the project and of a significant role for the EA development officer/ coordinator in supporting and encouraging the schools.

IMPACT ON TEACHERS AND PUPILS

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, levels of enthusiasm among teachers. They confidently expected teachers to maintain these changes. They saw teachers' focus in the project on awareness of learning, sharing learning aims and success criteria, a climate of success for all, improved relationships and encouragement of pupils' independent learning as evidence that good formative assessment was improving learning and teaching in a fundamental way.

SUSTAINING FORMATIVE ASSESSMENT

Current action
There was a strong commitment to sustaining the momentum of the initial project and growing formative assessment in each EA. All EAs had clear plans for growth and formative assessment featured in the current EA service plan and therefore in schools' development planning.
Various support strategies were intended or already in place. These included staff development days and, in different EAs:

> Use of external consultants or speakers
> Invitations to opt in to staff development events
> An element of obligation for schools to take part in certain activities related to formative assessment
> Identification of "credible" local teachers (often "pioneers" from the initial project) to contribute to staff development days
> Encouragement of, or some pressure on, schools to place high quality learning and teaching, including formative assessment at the centre of their thinking

and   planning in the coming 3-year period

What matters in sustaining formative assessment?
All EA representatives stressed the importance of support and visible commitment from SEED, HMIE and EAs; and linkage to school plans. They also emphasized that all these bodies need to give clear attention to formative assessment in quality assurance and monitoring. Consistency across the system was regarded as important.

Another recurring theme was the idea that a combination of key factors would be crucial to effective growth of formative assessment: the policy drive indicated in the preceding paragraph; awareness of research findings and research-based principles; and real, active involvement of classroom teachers. All EA representatives also believed that the focus on children's learning and the opportunity for teachers to try things out autonomously were important factors in growing formative assessment successfully, along with networking opportunities to discuss with and learn from colleagues. They felt that teachers developing formative assessment would need a sense that they were being well supported, whether by EA coordinators, an EA support team, their headteacher or national development officers.