A preliminary discussion is presented of the advantages and disadvantages of the comprehensive assessment system used to complement the National Curriculum that is being introduced in England and Wales as part of the 1988 Education Reform Act. Some of the early findings of the Primary Assessment, Curriculum, and Experience (PACE) study are also presented. As the National Curriculum is implemented, assessment of all children against attainment targets will be conducted and Standard Assessment Tasks (SATs) will evaluate the progress of children at ages 7, 11, and 14 years, with a final assessment at age 16 years. A study involving 88 teachers in the period prior to the first administration of the SATs indicated a sense of constraint resulting from the new requirements, with many worries about the time and practicability of the innovations and their impact on the teaching-learning relationship. Little recognition of a positive role for these assessment tasks was apparent. Interview data for 48 6-year-old children indicated anxiety on the part of students as well. It is concluded that the fundamental incompatibility of formative and evaluative assessment purposes has resulted in the loss of the powerful positive potential of assessment in promoting learning. (SLD)
PRIMARY ASSESSMENT, CURRICULUM AND EXPERIENCE
A study of educational change under the National Curriculum
Bristol Polytechnic
University of Bristol

THE CONDUCT AND EFFECTIVENESS OF PRIMARY SCHOOL ASSESSMENT

by

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The scale of the assessment programme currently being implemented for pupils at all stages of the education system in England and Wales is probably unprecedented in its attempt to combine the formative, summative and evaluative functions of assessment in one system. The National Curriculum being introduced as part of the 1988 Education Reform Act is based on subjects - English, Mathematics and Science which form the 'core' curriculum, and the 'foundation' subjects of technology, history, geography, music, art, physical education and, from age 11, a foreign language. Each subject is divided into 'Attainment Targets' which describe the knowledge of skills students are to learn and the 'Programmes of Study' through which they are to learn them. Each subject is further divided into ten levels, with a notional match between age and level such that, for example, the average seven year old will be at level 2 but with an increasing spread as children get older so that by the age of 16, children may be spread over almost all of the criteria-referenced levels.

Assessment of all children against the attainment targets will be regularly carried out by teachers so that parents can enquire in detail about their child's progress. In addition, progress in terms of overall level achieved will be reported annually to parents. At the end of each 'key stage' - at the age of 7, 11, 14 and 16 - parents will also get the results of externally devised assessments. At age 7, 11 and 14 this will be done through 'Standard Assessment Tasks' (SATs), administered and marked by the class teacher and externally moderated. At age 16 the GCSE exam will replace 'SATs' for those entered in particular subjects. In each case, the results for individual children will be reported to parents. In addition, the aggregated results for teachers and schools will be published except at Key Stage 1 where it is voluntary.

The aim of the assessment system is to provide information which would be

'diagnostic' through which learning difficulties may be scrutinized and classified so that appropriate remedial help and guidance can be provided;

formative so that the positive achievements of a pupil may be recognized and discussed and the appropriate next steps may be planned;
summative for the recording of the overall achievement of a pupil in a systematic way;

evaluative by means of which some aspects of the work of a school, an LEA, or other discrete part of the educational service can be assessed and/or reported upon.'

(TGAT 1989 para 23)

In the light of experience in the United States and elsewhere (Shepard, 1989; Corbett and Wilson, 1990), it is apparent that the implementation of this national assessment system is likely to have a considerable impact on English schools and teachers. Existing research evidence suggests that teachers' attitudes to their new responsibilities are characterized by anxiety and resistance. Among the 50 headteachers interviewed by Croll and Moses (1990), 70% identified the need for more assessment, testing and record-keeping as a major result of the implementation of the National Curriculum. Early results from the PACE study reveal similar concerns among classroom teachers. As Osborn and Pollard (1990) put it:

"Frustration and even anger was expressed by many over the amount of time now apparently demanded for record-keeping and assessment. There were fears that this was beginning to ‘take over from teaching’, that the heavy burden demanded in time and effort left too little time for planning, for responding to children, for display work and for all the things which were seen ... as ‘real teaching’. ... As one teacher argued, ‘I am not prepared to become somebody walking round with a check sheet and I will fight it ... I think that my place is with the children, making a relationship with them. It's not fiddling around with bits of paper.” (Osborn and Pollard 1990:2)

There have been two main problems here. The first is that primary school teachers are, 'in general, somewhat suspicious about the formal testing of children, particularly at the age of seven. Arguments about different rates of development, about the need to foster self-esteem and the concern to value the 'whole child' have generated a negative disposition to assessment procedures. Such procedures are seen to threaten key tenets of child-centred ideology. This view can be, and often is, articulated without reference to the evidence on the degree of ad hoc and formalized teacher testing that has always gone on (Gipps and Goldstein, 1984), and reflects as much as anything the coercive nature of the assessment programme.
The second factor which generates anxiety has been uncertainty, for since the passing of the 1988 Education Act there has been very little clear advice regarding the assessment requirements. Government agencies have been working to a very tight timetable, attempting to conduct innovative development work on standardised testing procedures; to promote formative teacher assessment by working through Local Education Authorities, many of which were in no position to produce coherent training programmes, to have the necessary teachers trained and ready for standardised testing procedures by the Summer of 1991 and to institute recording and reporting procedures. It is little wonder that the result has been a great deal of anxiety and uncertainty among teachers.

Anxiety was further increased by the 1990 piloting of Standard Assessment Tasks. In this study a 2% sample of children was used, drawn from a sample of schools across the country. It soon became apparent that the developers had grossly overestimated the amount of testing which they could reasonably expect teachers to carry out. Whilst the teachers were rushed off their feet and worked extraordinary hours, children who were not carrying out assessment tasks tended to be given occupational work. A vivid impression of the effects are provided by Torrance (1990) in an article drawn from letters sent to him by teachers who had been involved in the pilot. Amongst the things the teachers reported were the following:

"It was an onslaught of new activity after new activity .. eventually we were just 'getting through'."

The children ... "could not understand it when they were left to get on with all these strange new tasks, sometimes as many as four a day, without the usual support and explanation."

"Some pupils were displaying extremely distressed behaviour. One child was found hiding in a corner in tears, with her piece of work torn up in her lap. Another developed a stutter."

"The standard of work produced in non-assessed activities has deteriorated steadily since the beginning of term. The children's behaviour is also deteriorating as the teachers can no longer give the class the attention they need and deserve.."
"The developers of the SATs appear to have very little concept of how topics are approached in primary schools. What they have presented us with is a hotch-potch of loosely related themes, none of which can be developed properly."

"The assessment criteria were pretty useless, sometimes too specific, sometimes too unclear, sometimes open to different interpretations."

"Conducting SATs goes against everything else that happens in school and is as far removed from good primary practice as it is possible to get. We are constantly helping and encouraging children. ... Then suddenly for half a term all this changes. They have a problem and we can't help them."

The anger and concern embodied in these statements reflect teachers' concern about the effects of the testing on children and the fact that teachers felt required to act in ways which they regarded as unprofessional, damaging and in conflict with their personal commitments and beliefs. It remains to be seen if the reduced testing programme of Summer 1991 will produce the same responses.

The situation regarding formative, 'Teacher Assessment' is a little different. This has been introduced into schools following LEA training programmes during 1990. Emphasis has been placed on forming assessment judgments on the basis of 'gathering evidence' and on feeding such judgments back into the teaching/learning process through the enhanced understanding of children's thinking which teachers will then have. There is thus a professionally constructive account available regarding teacher-controlled formative assessment which is broadly consistent with child-centred philosophy. This has led many teachers to accept the principle of teacher assessment. However, the struggle with regard to the workload and practicality of implementation and administration remains.

In this paper, therefore, we can only speculate about the likely impact of some of the most crucial elements of the National Assessment programme. Not until the 'SATs' actually take place this summer will we have actual data describing their impact on children and teachers, on parents, and on the community and it will be even longer before the true long-term impact, rather than short-term impressions, can be evaluated. However, much of the apparatus of teacher-assessment is already in place, its impact on teachers' practice, school policies, and, to a limited extent,
children themselves, is already becoming discernible. Thus, in what follows, we offer first a discussion which highlights the potential advantages and disadvantages of such an unprecedentedly comprehensive assessment system. Secondly, we present some of the preliminary findings from the PACE study as a basis for refining the conceptualization of these issues, as well as offering some early insights into the changes now taking place. The paper concludes by drawing out some of the more general implications that such large-scale assessment programmes might have for other countries.

The arguments for assessment

In the section that follows we distinguish between the more informal, day to day impact of the requirement for more continuous teacher assessment under the 1988 Act and the more formal, 'one-off' impact of Standard Assessment Tasks to be taken by pupils at the end of each 'Key Stage'.

Teacher assessment

a) supporting individualized learning

In recent decades, English primary education has been characterized by a 'child-centred' approach in which children are encouraged to explore and investigate to take control over their own learning with the support of their teacher. In practice it has proved difficult to make child-centredness a reality with a class of 30 or more children (Galton, Simon and Croll, 1980) and many children have, in consequence, been engaged in work which is poorly matched to their needs (HMI 1978, Bennett et al, 1984). Being able to diagnose the precise nature of each child's learning needs and to respond effectively is crucial. Thus, if primary school teachers can be enabled and encouraged to use assessment in this way it should result in more effective, individually-tailored learning.

b) encouraging children's learning

There is now considerable research evidence available which documents the role assessment can play - negatively or positively - in influencing student learning. In addition to the well-recognised 'carrot and stick' function in relation to motivation, there are many more subtle short, medium and long-term effects as Crooks (1989) identifies in a recent review of research in this area. These include the consolidation of existing learning, focusing attention
on the more important aspects of the subject; encouraging students towards active learning and self-evaluation; providing feedback to guide future learning and helping students to feel a sense of accomplishment. In the longer term, the evidence suggest that the way in which assessment is used can profoundly affect students’ continuing motivation; their self-perception as learners, their learning skills and styles and their ability to retain and apply in new contexts what has been learned.

c) heightening teachers’ awareness
The process of using new techniques (such as observation, discussion, interviews, and pupil self-review) as a means of collecting the evidence for assessment, plus the obligation to regularly record children's progress, seems likely to lead to a heightened awareness among teachers of the value of detailed, individual assessment in guiding and supporting the learning process. Equally it should lead to the development of improved skills in this area where hitherto teachers may have lacked both the expertise and the commitment to engage in more than intuitive, impressionistic assessment.

d) contributing to curriculum development
As teachers collect and interpret evidence about individual children’s progress they will be able to critique constructively the existing sequence of targets and levels which are built into the National Curriculum. This should help in the overall need to develop understanding at both classroom and national level of the ways in which children learn.

e) contributing to the development of a School Assessment Policy
The increase in explicit and recorded assessment activity in schools is likely to raise questions in teachers’ minds about the role and purpose of assessment. In many primary schools the need to train teachers in assessment skills and the requirement for whole school approaches to recording and reporting to be developed, has acted as a stimulus to the development of a SAP. This process typically involves collective consideration of the aims and purposes of assessment and often provides an opportunity for a fundamental review of the nature of teaching and learning. In practice it should lead to the more coherent and integrated use of assessment within a school with consequent advantages in terms of time saved by avoiding duplication in assessment purposes, improved quality in the information being collected and
transmitted, and clearer understanding among pupils of both the purposes of assessment and the criteria on which it is based.

**Standard Assessment Tasks**

a) providing for comparison
It is often helpful for teachers to have some yardstick with which to compare the efforts of their own pupils. SATs are intended to provide teachers with reasonably objective evidence about how well their pupils are achieving in comparison with those of other teachers and schools.

b) learning through moderation
The detailed plans for moderation are not yet finalised. However, if, as the TGAT Report argues, teachers meet to ‘moderate’ each others’ assessments, a great deal of productive learning and sharing typically is likely to take place. Even if moderation is conducted by a moderator visiting an individual school, the provision of an external yardstick is still likely to be useful.

c) accountability
SATs will help in the identification of those teachers and schools with standards that are unacceptably low. In so doing they may well help to trigger appropriate remedial action.

d) national standards
SATs will provide policy-makers with detailed national information about the outcomes of education which can provide the insights needed for more soundly-based decision-making.

**The arguments against assessment**

**Teacher assessment**

a) being impractical and unmanageable
Given the number of statements of attainment to be assessed (32 in the core alone), the emphasis being placed on the collection of 'evidence', the almost total lack of non-teaching time in primary schools and the lack of systems for handling the data being collected, there is considerable scepticism amongst
teachers regarding the practicality of carrying out teacher assessment for each child.

b) producing unreliable and invalid results
Teacher assessment offers few safeguards regarding the vaguaries of judgment by different teachers working in unique contexts. It is by no means clear that judgments can be consistent or valid without massive investment in moderation procedures. The moderation procedures which are being trialled are very modest compared with those initially envisaged in the TGAT Report of 1987.

c) reinforcing teacher stereotypes of children
There is a danger that teacher assessments could simply provide a spurious, quasi-scientific legitimacy to patterns of teacher prejudice and thus reinforce processes of labelling and social differentiation.

Standard Assessment Tasks

a) being impractical and unmanageable
As with the Teacher Assessment, the demands of time, classroom organisation, containment of children who are not being assessed, and administration, are immense. Few additional resources are being made available to schools.

b) placing an intolerable strain on teachers
Teachers are already working very long hours and many see the work required in the conduct of SATs as being unreasonable. Some teacher unions have advised staff to work within the terms of their contracts only. In Scotland many teachers are even threatening strike action over SATs.

c) causing anxiety and distress to children
Many teachers feel that the conduct of SATs will have to be very different from normal classroom teaching, in order to provide an acceptable degree of standardisation. They believe that this will be stressful for many seven year olds. Also many children who do not achieve well may be dispirited - demotivated to apply themselves subsequently.
damaging teacher/child relationships
It is speculated that the quality of teacher/child relationships, which is an issue at the heart of primary school teacher beliefs and commitments in England, will be damaged by the assessment procedures. Teachers pride themselves on their ability to work ‘alongside the child’ and yet they must now detach themselves for ‘objective’ assessment purposes.

e) diverting attention away from teaching and learning
The amount of time to be taken by the administration of SATs is a bone of contention since this will divert teachers from what they see as their main responsibility - teaching - into what is seen as a peripheral activity imposed from outside for no good intrinsic reasons.

f) producing unreliable and invalid results
It is by no means certain that cross-system reliability can be achieved even with the attempt at standardisation in the nature and administration of assessment tasks. Nor is it clear that the tasks will themselves produce valid evidence of the attainments which they purport to elicit. Indeed, the trade-offs which have necessarily been made with regard to manageability may raise particular questions in this regard.

g) leading to over-simplified public judgments about schools
This issue is a major one and must be placed in the context of the Government's intention that assessment data be published, its policies for open-enrolment and its policy for school funding where this is based, in the main, on numbers on roll. It is feared that the overall effect will be the creation of educational markets, with schools competing against each other for pupils and with assessment data on attainment forming an important, but very crude, indicator of school performance. Many people fear that parents, the media and the public generally are not well placed to make sound interpretations of aggregated attainment data, even if supplied with appropriate contextualising information.

h) SAT results need to be aggregated for reporting purposes
The aggregation arrangements impose arbitrary weightings and combination rules so that the final composite score may well not be a valid reflection of the performance produced.
The above arguments provide many of the research questions being addressed by the Primary Assessment, Curriculum and Experience (PACE) project. In what follows we report some of the initial findings of the research programme concerning teachers' perceptions of their own assessment activity and pupils' feelings about assessment at this early 'pre-SATs' stage.

Empirical research to date tends to confirm the arguments outlined above; that teachers do perceive the pressures being put upon them to change their approach to assessment and recording as a negative one that conflicts with their professional priorities.

In response to a question asking them 'what are your priorities in working with the children in your class?', teachers' responses gave particular emphasis to the inculcation of basic skills (mentioned by 38 out of 88) and matching work to children's needs (n = 28). 47 teachers in the sample also mentioned encouraging children to enjoy learning, with developing their autonomy (n = 29) and their social skills (n = 30) also figuring prominently. Whilst the majority felt the National Curriculum itself was well-matched to the needs of many, if not all, their students, (n = 48) a substantial number qualified this by referring to practical problems such as class size (n = 23) and, in particular, to the assessment procedures which they saw as unrealistic and time-consuming (n = 11) with only one respondent providing a positive welcome for the assessment component.

Of the 34 teachers who felt their approach to teaching had changed over the last year, 28 identified responding to assessment requirements as at least one of the reasons for this change. Among the specific changes identified, the nature of assessment practices (n = 26) and those in record-keeping (n = 23) figured prominently, being mentioned by more than a quarter of the sample in each case. The new assessment requirements were also identified by 19 teachers as a constraint on how they taught.

Of the 78 teachers who felt their typical day had changed in some way over the last year, 53 related this to changes in record-keeping and 29 to changes in assessment.
Asked specifically, 'Has the amount of time you spend on record-keeping changed recently?', teachers responded as follows:

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>A lot</td>
<td>71</td>
</tr>
<tr>
<td>A little</td>
<td>7</td>
</tr>
<tr>
<td>No Change</td>
<td>1</td>
</tr>
<tr>
<td>Expected to change</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
</tr>
</tbody>
</table>

n = 88

A further question elicited the nature of these changes:

<table>
<thead>
<tr>
<th>Change</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>More written recording</td>
<td>87</td>
</tr>
<tr>
<td>Less written recording</td>
<td>0</td>
</tr>
<tr>
<td>More direct work with pupils</td>
<td>10</td>
</tr>
<tr>
<td>Less direct work with pupils</td>
<td>2</td>
</tr>
<tr>
<td>More work with colleagues</td>
<td>26</td>
</tr>
<tr>
<td>Positive feelings about assessment/record-keeping</td>
<td>7</td>
</tr>
<tr>
<td>Negative feelings about assessment/record-keeping</td>
<td>49</td>
</tr>
<tr>
<td>Mentions records of achievement</td>
<td>24</td>
</tr>
<tr>
<td>Other</td>
<td>18</td>
</tr>
</tbody>
</table>

n = 88

With regard to specific changes in assessment practices, teachers' responses indicated some trend towards the use of different techniques such as discussion and review, formal observation and listening, and records of achievement but not on a major scale. We may surmise from this that at the time of our survey, whilst teachers felt
considerably increased pressure to assess and record, this pressure had not yet been substantially manifested in changes in the nature, as opposed to the volume, of their assessment approaches. Given the intensive in-service training in the field of assessment and recording, including the development of Whole-School Assessment Policies, which is currently taking place among primary school teachers, we may shortly anticipate more substantial - possibly more positive - developments in this respect.

<table>
<thead>
<tr>
<th>Emphasis</th>
<th>Change recently</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Standardised tests</td>
<td>13</td>
</tr>
<tr>
<td>Marking written work</td>
<td>54</td>
</tr>
<tr>
<td>Pupil self-assessment</td>
<td>28</td>
</tr>
<tr>
<td>Listening to children</td>
<td>70</td>
</tr>
<tr>
<td>Discussion/review</td>
<td>72</td>
</tr>
<tr>
<td>Other</td>
<td>50</td>
</tr>
</tbody>
</table>

n = 88

Pupil perspectives

Our insights into students' responses to assessment are similarly confined at present to what is essentially a 'base-line' picture before the impact of the first 'SATs'.

Data on young children's perspectives of the introduction of these new assessment procedures is not available at present. However, we do have data collected by interview from 48 six year old children during the Autumn of 1990. This is
indicative of their awareness of assessment issues prior to the main period of teacher
INSET and assessment preparation.

We will report these data by focussing on children's answers to two questions. the
first of these was:

'How do you feel when your teacher asks to look at your book?'

The data were coded as follows:

- Responses indicating anxiety: 14
- Neutral responses: 8
- Responses indicating pleasure: 19
- Responses indicating pleasure or anxiety depending on circumstances: 3
- Uncertain responses: 4

These are interesting findings for, whilst they indicate that significant numbers of
children feel a degree of anxiety when facing potentially evaluative situations with
teachers, they also confirm the positive relationship which most primary school
children feel towards their teachers.

Among the anxious responses were the following:

- I feel a bit worried, in case you do it wrong.
- I feel guilty ..., 'cos if you do it wrong you get told off.
- I feel worried in case she says 'start again'.
- I get worried that she might throw it out.
- I feel a bit nervous ... and I finish it.

Such responses convey an interesting mix of motives, from the fear of humiliation, to
that of having to do further work. Responses indicating pleasure often provided
mirror images. For instance:
Well, I think I feel quite nice - she does a tick and we put it in the box.

Good, 'cos you can get it over with and go onto something else.

OK, ... proud of myself.

There were also responses which overtly indicated children's uncertainty about the criteria by which their work was assessed. For instance:

I feel happy, 'cos I don't know if I have done it wrong or not.

Other children simply basked in the pleasure of having the attention of their teacher:

I like it, ... 'cos she sits by me.

The second question on which we will report here was designed to highlight children's perspectives on the use of teacher sanctions. It was:

'Does it matter if you don't do things the way your teacher wants them?'

The children's responses were coded as follows:

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>14</td>
</tr>
<tr>
<td>Yes</td>
<td>32</td>
</tr>
<tr>
<td>Don't know</td>
<td>2</td>
</tr>
</tbody>
</table>

Interestingly, most of the children who felt that pleasing the teacher did not matter found little difficulty themselves in doing so.

Among the 32 children who were concerned that 'doing what teacher wants' does matter, over half of them mentioned fear of being 'told off' and a quarter mentioned their dread of having to 'start again' or do more work. For instance:

She shouts at me sometimes when I don't do good work.

'Cos she tells you off and she rubs it out and she tells you to do it again.

She says 'start all over again'.
If you haven't finished, she looks at your work and you have to still carry on.

Among the other sanctions mentioned here were 'being put by the cupboard', 'standing in the book corner' and also the possibility that 'she gets angry with you and she tells your Mum or your Nan or anybody who picks you up'.

It is clear then, that whilst most of the six year olds who were questioned expected to feel positive about occasions where their teacher inspected their work, they were also very aware of the power dimension of their relationship with their teacher and of the consequences of failing to satisfy their teacher's expectations. A significant group kept their head down and aimed to 'please' their teacher ... 'Every time, I do it right, like she says', 'I like doing it like she wants', ... but for most other children the risk of being 'told off' was a real one. A few children appeared to be doubting the legitimacy of the teacher's actions ... 'She doesn't want us to do wrong things - never', 'She gets really mad', and one or two individuals appeared to be thinking of ways to play the system ...

When she tells me off? Well, I feel sick and me Mum comes to fetch me and takes me to Northway Hospital.

This data was collected at a time before Teacher Assessment and Standard Assessment Tasks had been introduced. It begins to provide a baseline against which we hope to measure the awareness of these same children as they move towards their own formal assessment at the age of seven in the Summer of 1992.

Overview

Thus the overall picture that emerges from the research to date about the impact of National Assessment is of teachers who feel a growing sense of constraint as a result of the new requirements. Their anxiety and resentment is, at this stage, still very general, echoing the worries about time and practicability and the impact on the teaching-learning relationship which were identified along with other potentially negative effects of assessment at the beginning of this paper. There is little sign, as yet, of any recognition of a more positive role for assessment. This, coupled with the rather matter of fact tone of 'the children's expressed feelings about assessment' suggests that what our research was picking up at this time (Summer and Autumn 1990) was as much fear of the unknown as of real experience of National
Assessment. The intensity of the feelings expressed, however, suggest that it may well be difficult now for any more constructive attitude in this respect to be engendered among teachers. If this does indeed prove to be the case it will mean, as we argued at the beginning of this paper, that the fundamental incompatibility of formative and evaluative assessment purposes has resulted in the loss of the powerful positive potential of assessment in promoting learning. Rather, we may find ourselves witnessing yet another manifestation of that scenario which is all too familiar to American audiences in which 'high stakes' testing encourages the teaching of test-taking skills in a climate of anxiety and teacher resentment and where any improvements in student learning are, at best, incidental.