DEVELOPING A FRAMEWORK FOR EFFECTIVE LEARNING AND TEACHING IN A SECONDARY SCHOOL SETTING

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SYNOPSIS

This article describes a research study commissioned by a Scottish Council, designed to investigate aspects of educational provision in the first two years of secondary education and with the aim of generating a framework for the development of teaching and learning policies in the Council's schools. The context for the research included the Council's best value regime, the advice from HMI to schools on how the quality and outcomes of the educational experiences of pupils in S1 and S2 could be improved, and the concern of the Council at the prospective adoption by schools of practices derived from that advice, which contravened its own guidelines particularly on mixed ability classes. We report our findings in four key areas of educational provision: transition arrangements between primary and secondary school; timetabling and its effects on learning and teaching; coherence and core skills; and class organisation. Finally, we consider the difficulties of conducting objective and impartial research in the politicised and professionally partial arena of educational improvement.

INTRODUCTION: THE NATIONAL CONTEXT

Scottish education has traditionally been described as 'nationally governed and locally administered'. While this has been criticised as offering a description which underplays the strategic role of local authorities (Boyd, 1993), nevertheless it has long been accepted that a symbiotic relationship exists in policy terms between central and local government in Scotland. This relationship has changed in recent years, in structural terms at least, with the re-organisation of local government in 1996 and the subsequent establishment of a Scottish Parliament in 1998. The former created so-called 'enabling' authorities, single-tier and charged with devolving resources and decision-making to schools. The latter set up an education committee, passed legislation and set up a 'Best Value' regime to ensure the accountability of the new Councils.

The issue of educational standards remained at the heart of educational policy for the New Labour Government as it had for the Conservatives, with tackling underachievement and promoting social inclusion as the twin priorities of both the UK Government and the Scottish Parliament. The concept of the enabling authority, intended to be less involved in service delivery (Ridley, 1988; Carter, *et al*., 1990), would be tested in terms of the new relationships to be developed both with central government and with their schools. However, as Cowie (2001) has argued, decentralisation, paradoxically, can also be seen as an opportunity to tighten control, giving rise to a version of accountability that 'reinforces conventional hierarchical control at the level of the microstructure' (Mintzberg, 1996 p. 81).

Addressing underachievement became one of the key areas for target setting of the new Scottish Government and nowhere was this more apparent than in the first two years of secondary school. Drawing on evidence from the national Assessment of Achievement Programme (Stark, *et al*., 1997) and international studies of achievement in mathematics and science (Semple 1998), Her Majesty's Inspectorate (HMI) had concluded that the first two years of secondary school was a crucial area of underachievement. In the mid-1990s, a succession of HMI reports had appeared

which focused on primary-secondary transition and on S1 and S2 in particular, and all had 'achievement' as the key theme. *The Education of Able Pupils P6 to S2* (SOED, 1993) asserted that 'the fresh start approach in secondary one is no longer tenable' and suggested that schools develop 'an ethos of achievement'. *Achievement for All* (SOEID, 1996) looked at 'selection within schools' and concluded that 'setting by attainment' should 'become more common' in primary schools and that 'grouping by attainment' should be 'the preferred form of organisation for most teaching purposes in S1/S2', with 'broad-band setting particularly recommended for English, mathematics, modern languages and science.' (p.23). In *Achieving Success in S1 and S2* (SOEID, 1998), HMI reiterated the advice given on the abandonment of fresh start and the adoption of setting by attainment and further suggested that schools reduce the number of teachers encountered by an S1 or S2 class in a week to promote greater coherence.

The relationship between the policy advice from HMI and research evidence was problematic. The Scottish Council for Research in Education (SCRE) was commissioned to conduct a literature review on the issues of mixed ability, setting and streaming to inform *Achievement for All*. In the event, HMI chose to publish their report in advance of the publication of *Setting and Streaming* (Harlen and Malcolm, 1997), giving rise to suspicion that this was because the researchers' conclusions—that there was no clear evidence as to the benefits of one form of classroom organisation over another in terms of raising the attainment of all pupils—did not support HMI's advice on setting (Boyd, 1997).

PLANNING RESEARCH IN A COUNCIL POLICY CONTEXT

The Council's Strategy

Late in 1999, a council in Scotland approached the authors, and invited them to bid for a research project into provision in the first two years of secondary schooling. This Council, like many others, had interpreted national policy and developed particular advice for its own schools. As part of the Best Value regime, it had carried out a number of related evaluation exercises, on 'Cluster Effectiveness', 'Secondary School Departmental Development Plans' and on 'Raising Standards'. It had also, in accordance with the recommendations in *Achieving Success in S1 and S2,* issued 'guidelines' to schools on 'The 5-14 Programme', 'Effective Learning and Teaching: Mathematics 5-14' and 'Class Organisation in the Later Stages of Primary Schools and in S1 and S2 in Secondary Schools'.

In a paper to the Education Committee of the Council in 1998, the director of education proposed that, in the light of HMI advice, secondary schools should have no more than '12 discrete subjects in the S1 and S2 timetables by the end of 2000/2001', and gave practical advice on the 'rotation' of subjects to achieve this end. The issue of setting by attainment was more problematic since some schools had already begun to move towards this procedure, notwithstanding the director's advice 'to act with caution and to avoid any over-precipitate moves'. Indeed, as the research project was in its planning stage, it became clear that one school which had 'broken ranks' on broadband setting, was earmarked to be one of the 'focus schools' for the research. The identification of the other three focus schools was open to negotiation with the researchers.

The Role and Remit of the Researchers

The specific aim of the project was to produce 'a framework for effective learning and teaching'. The general intention of the Education Officers of the Council was that the researchers should investigate aspects of the management of the teaching, learning and curriculum from an evaluative stance, with a view to highlighting

strengths and weaknesses but, most importantly, generating a product in the form of a framework which would inform the thinking and actions within future developments in their education services.

It was clear from the outset that the researchers were in a potentially delicate situation, given the different vested interests involved concerning school practices and Council requirements. Tensions between the new Councils and HMI had been growing and the former jealously guarded their right to interpret national policy in the light of local circumstances and expected schools to pay heed to their guidelines, though, as enabling authorities, they were unwilling to be directive. For example, this particular Council was concerned about the potential progressive undermining of the hitherto accepted authority wide practice of mixed ability teaching in S1/S2. The Council issued 'guidelines' recommending mixed ability classes, however, the officers expressed concern that some schools were using HMI advice to introduce setting or broad banding—a potential precursor to harsher setting—against the expressed Council policy and all the research literature which officers had consulted. Meanwhile, the schools indicated to us that their attempts to introduce improved educational practices were adversely affected by what they perceived as a huge burden of administration and data collection imposed by the Council for merely bureaucratic reasons.

Some schools were very wary of the researchers' remit, as 'best value' procedures provided the opportunity for the Council to justify external researchers/evaluators but it was clear from discussions of the general awareness that the director was hoping that the researchers would provide evidence to support the Council's policy advice to schools. As Ozga has pointed out in her critique of two influential reports on educational research (Tooley and Darby, 1998 and Hillage, *et al.*, 1998), the strategy of research informing policy may rest on assumptions that: *…the relationship of research to action…[is]…straightforward, flowing in one direction and practically useful. These are large assumptions.* (Ozga, 2001:30). She comments on the assumption of a 'passive role' for teachers and a 'technicist view' of them, and suggests, at least in England and Wales, that: *In the 'official' version, teachers will become more effective when they are offered clear prescriptions for practice by researchers, within a rational policy framework to which all three groups contribute.* (Ozga, 2001:33). However, the relationships between policy makers, researchers and in this case school managers and teachers, is delicate and complex if the latter are to be recruited as active participants both in research and in policy-making.

Within the context of national and Council advice to schools, the investigations covered a range of aspects of the school processes and procedures identified by the Council. In this paper we deal with four of these: transition arrangements between primary and secondary school; timetabling and its effects on learning and teaching; coherence and core skills; and class organisation.

METHODOLOGY

Four schools (of the total of eight in the authority) were identified as 'focus' schools in which intensive and detailed data collection was undertaken and, on average, ten days were spent in each of these schools. The remaining four secondary schools in the authority were also visited, interviews were undertaken with senior staff and documentation on key school procedures was collected. Contact was made with a selection of the associated primaries (N=12) of the focus schools. Teachers in P7 and S1/2 were asked to identify one or two focus pupils from the following three categories: pupils with learning difficulties; pupils anticipated to do well academically; pupils with social/behavioural difficulties. The specific data collection activities undertaken by the researchers were then as follows:

- *interviews* with 12 primary headteachers and 12 teachers of P7 pupils on their perceptions of pupils as learners, learning contexts and the processes and procedures directed towards ensuring continuity and progression across P6 to S1;

- *half day observations* of P7 pupils at work (in six primary schools);

- *individual interviews* with:

    - secondary senior management staff (headteachers: N=8; and AHTs/DHTs with particular remit for 5-14 and for timetabling: N=12);

    - PTs and teachers of S1/S2 classes in key curricular areas (N=16 in each focus school);

    - other relevant school staff e.g. librarians, ICT support.

- *shadowing* of S1 and S2 classes for one day each in all focus schools to observe:

    - the range of teaching and learning strategies experienced;

    - the effects of mixed ability and class organisation;

    - teacher expectations and pupil engagement;

- *interviewing* of S1 pupils (N=25) and S2 (N=20) pupils in pairs and threes as the timetabling allowed, to ascertain their perceptions and key experiences of the transition and of their secondary education;

- *contacts with parents* (telephone interviews with four parents (of pupils who had been interviewed) at each of the focus schools; individual and group discussions at two parents' meetings), to ascertain their views on their expectations and aspirations for their children at the start of S1;

- *documentation* was collected and scrutinised, including S1/S2 timetables, development plans, relevant policies, primary/secondary transition arrangements, papers from internal working groups.

GENERAL FINDINGS

(a) Transition arrangements

The issue of transition to secondary school has been a source of national concern since 1980. In that year, the Deputy Senior Chief Inspector of schools had referred to primary – secondary transition as a 'pantomime horse' (quoted in Boyd, 1993). A Programme Directing Committee of the Consultative Committee on the Curriculum had been set up in 1983 and had produced *Education 10-14 in Scotland* (1986). It identified four key objectives as being necessary for effective transition arrangements:

1. to ensure that every pupil in P7 has experience of the layout and organisation of the appropriate secondary school before entering S1;

2. to ensure that every pupil in P7 and their parents are aware of all the circumstances and requirements of the secondary school which will affect the pupil in S1;

3. to ensure that every pupil in P7 has some acquaintance with those members of the secondary school staff who have responsibility for S1 classes;

4. to ensure that arrangements are made for a process of consultation between primary and secondary school teachers and thus help create a curricular continuity from P6 to S2 (CCC,1986: Appendix D, pg. 201).

Our data from attendance at cluster group meetings, documentation (including the Council evaluation of cluster arrangements) and interviews with both primary and secondary staff indicated that in all of the focus schools, there was a recognition that the processes and procedures for transition were important in shaping the appropriate context, pace and level of demand in the first year. Considerable thought had been given as to how the transition could be most effectively managed given the usual constraints on resources and the large number of staff involved. The sheer volume of activity throughout the year involving primary and secondary staff, pupils and parents was considerable, and the associated documentation was substantial. Relations among the schools in the various clusters were good, and each had developed, over time, specific ideas, initiatives and patterns of activities.

To a large extent, the first three of the above objectives had been effectively met within this Council's clusters and the primary staff expressed satisfaction with the general transition arrangements. However, there were considerable levels of concern in both sectors about many of the specific aspects of current practice with respect to the fourth objective.

Managing curriculum continuity and progression

Cluster headteachers' meetings were held about twice a term, and where appropriate teachers from either sector who were reporting back from working groups or other specialist input were invited to attend. The working groups which carried out the tasks devolved to them by the management group of headteachers met as and when required. There was cluster funding for them to have three days out of school to work together and for travel or supply cover.

Nevertheless, although the pupils now moved between the two systems with greater degrees of ease and familiarity than before and visits of guidance teachers and learning support teachers were well established, it was clear that at the level of the class teachers there were difficulties with arranging exchanges:

> *I really don't know an awful lot about (what goes on in secondary). I wouldn't mind being a fly on the wall in some secondary classes just to see what happens. I can only go back to my own schooling. It may have changed completely since then. There are no opportunities to meet with secondary colleagues.* (P7 teacher)

> *I haven't been in a primary school since I was 11! They have a group approach there. We may need to find out more about P6 and 7.* (PT Secondary)

Some clusters had successfully begun to address the curricular issues by developing common programmes based on materials developed by the authority. All clusters had been given staffing resources in the form of FTE (full time equivalent) to enable them to bring in supply staff and release permanent staff to develop aspects of the curriculum. One cluster, contemplating the possibility of 50 days FTE, considered extending the range of "bridging projects" beyond English. However, in one non-focus school, the senior management team, working with primary colleagues had been able to find money from a number of budgets to devote one full FTE equivalent to the promotion of 5-14 curricular continuity. This had already freed staff from across the curriculum to visit one another's classrooms and to use opportunities to explore issues such as teaching and learning approaches, expectations and building on pupils' prior learning.

Content coverage

Some staff offered evidence of plans for their programme of developments, including details of timescales and aims. However, most of these were primarily focussed

on the content to be included. For example, one plan set out a series of activities starting with the submission of a plan of topics from the secondary departments, followed by the submission by the primaries of their plan of P6/7 topics, followed by a period of discussion, negotiation, and rearrangement. Only after the plan of P6-S2 topics had been agreed was discussion of learning and teaching strategies scheduled to take place.

Different sectors will inevitably have different views of what counts as proper content to be covered in different subject areas. However, it appeared that even when content was agreed, there were clearly differences in what counted as 'coverage' given the very different approaches to teaching and learning in the two sectors. Our interviews with secondary staff suggested that it was their suspicion that agreed topics had not been properly 'covered' i.e. directly taught, which subsequently led them to depart from the agreements made with primary colleagues with respect to P7/S1 content.

Transfer of information and the 'fresh start'

One of the main contributions to continuity and progression in learning experiences is the provision of appropriate information by the primary staff on the experiences and attainments of the pupils across the transition and the monitoring of pupils progress during S1 and S2. This has proved a difficult area for Scottish schools nationally (Simpson and Goulder 1998; SEED 2002), and the experiences of school staff in this Council were no exception. The transfer of National Test results and other information was a key component of all of the schools' transition arrangements and the best means to distribute the information once it had been received in the secondary school had been given considerable thought in a number of the senior management teams. In addition, primary schools in some clusters had compiled folios of P7 pupils' best work and sent them to the secondary.

The primary staff voiced the typical concerns of teachers who feel they know all their pupils well and can, therefore, give an important and professional account of their characteristics and needs. Most secondary staff time and effort appeared to be devoted to the collection of information by guidance and learning support teachers on their visits to the primaries. This was the most detailed and effectively managed information, and related particularly to the needs and characteristics of the most vulnerable or potentially most disruptive of pupils. The information was particularly oriented towards the identification of learning difficulties, and/or behaviour problems and was considered vital in anticipating and planning to avoid potential difficulties for both the pupils and the staff in the secondary setting. This type of information also allowed departments to 'bid' for the precious resource of learning support time.

However, with respect to the records of attainment which were sent from the primary schools, the secondary staff identified a number of characteristics which made them suspect or of little use. Teachers were not always certain that the identification of levels was accurate, as one PT Social Subjects indicated, 'we find an unrealistic number at level E'.

The written comments were regarded by some as overly positive and hence suspect:

> *You have to 'read between the lines' to know what something means. It is written in a code which maximises the positive and minimises the negative. If you are not careful you end up having problems.* (PT secondary)

The fact that the National Tests are marked by the primary staff and that no time or resources are available for the type of moderation procedures normally experienced by secondary teachers in examination contexts was also raised as grounds for treating the test results as potentially unreliable.

The concept of the fresh start, declared 'untenable' by HMI in *The Education of Able Pupils P6 to S2* (SOEID, 1993), was raised frequently by staff in the interviews:

> *My main concern is that the primary information should be acted on. I suspect that a few staff do, and many don't.* (AHT secondary)

> *The fresh start is still alive and well in many respects.* (AHT secondary)

Once broad-banding or setting had taken place, whole class teaching with little differentiation was observed as the norm. As one AHT indicated, 'Once they are all sorted out, teaching proceeds pretty much as usual.' Some teachers responded effectively to the differences in the characteristics of the pupils in their class. In others, little or no differentiation was practised; in some cases teachers were clearly putting in a great deal of effort, but with little apparent return. Several expressed the view that lack of time to write workbooks for their subject content at all 5 levels of the 5-14 Guidelines was the main stumbling block to effective differentiation.

(b) Timetabling and its effects on teaching and learning
Managing the timetable

Generally speaking, all of the focus schools followed the SCCC Guidelines for S1 and S2 provision and pupils in S1/2 experienced contact with, on average, thirteen teachers in one week. Most schools had recently reached this figure from previous highs of 15 or even 17 contacts, and most headteachers indicated a wish (or the requirement) to get it down to around 12, the target figure set by the Authority. They were aware of the rationale set out by HMI and by their Authority to reduce the numbers so that teachers could get to know the pupils more readily and thus be better able to respond to learning needs. Nevertheless, elements of resistance were indicated. Some expressed conviction that whatever their efforts, arrangements would be sabotaged because of subjects which were likely to be added to the S1/S2 curriculum - ICT was cited. Others were unconvinced of the efficacy of subject rotations, while some opined that the range of subject specialisms is a *strength* rather than a weakness in S1/S2.

Most of the secondary schools had a 30 period week structure although there were variations. However, the overall percentage time allocations to subject areas were very similar. In practical terms, the S1 and S2 timetables had the lowest priority as they were normally the last to be completed. One DHT talked of an efficiency audit which had been carried out on the Council's secondary school timetables which suggested that most secondary timetables are 'efficient'. However, in some, he indicated, there are still 'inefficiencies' which he described as follows:

> There are split classes - though it is outwith my control, e.g. problems such as part-time personnel, job-sharing, etc. I try to get S3 - S6 as balanced as possible and then fit in S1 and S2 as best I can.

This matter of priorities is not simply a timetabling issue. In one school the senior staff expressed the view that greater attention really ought to be given to acknowledging the importance of the S1/S2 years as a foundation for effective learning higher up the school.

> *HMI's 'Achieving Success in S1/S2' has increased the emphasis. Departments do not always see the link between S1 and P7 or indeed S1 and Standard Grade.* (HT secondary)

Although everyone interviewed agreed that the *status quo ante* of 15–17 teacher contacts per week was untenable there was little consensus among Principal Teachers on the subject of how to improve timetabling in S1 and S2. PTs appeared to have

little input into the overall structure of the timetable. Since subject demarcation lines are rigidly maintained, and every pupil is required initially to experience the full range of subjects, followed by specific patterns of choice in years S3 to S6, the allocation of limited time slots across a school becomes such a complex task it is devolved to a member of the management team and there is little room for idiosyncrasy, innovation and flexibility. Teachers' jobs depend on appropriate slots being made available for their subject. A range of views was expressed on the limited options available to address the general and specific problems. The issue of subject rotation was controversial: PTs, in the main, were resistant; timetablers found it constraining. Headteachers were divided in their views, with some expressing the view that the HMI and authority pressure for change targeted towards reduction in teacher contacts per week was generally a beneficial initiative and others opining that despite the good intentions underlying the targets, the solution might be worse than the problem. In the discussions on timetabling, the likelihood of the purpose of the exercise actually being achieved was seldom touched on:

> *One period per week in S1 and one period per fortnight in S2 is not helpful. Only 2 teachers (in the subject) means that each one sees half of the year group per week. How are we supposed to get to know the pupils and how can we build in meaningful homework?* (PT religious education)

In the morass of practical and logistical challenges and strongly held professional views, reaching the targets set appeared to be taking over as the aim of the exercise. It would appear that given the rigidities of the curriculum and the departmental structures the extent to which timetabling solutions to the problems of pupil underachievement are possible appear extremely limited.

Pupil perceptions

Notwithstanding all of the concerns which professionals may have about the structure and balance of the S1 and S2 timetable, pupils when interviewed, in the main, expressed enjoyment at the variety of subjects and teachers, liked moving to specialist accommodation and were generally happy in secondary schools. However, when asked how many subjects they had in a week, they couldn't be exact about it. They thought they had around 15 teachers in a week - though not all of them could remember all of the subjects! Some pupils said that they liked having specialist teachers, and mentioned science, French, technical, IT and music in particular. One group of pupils, discussing the number of subjects they had in a day, felt that 6 subjects was too much and would prefer 3, i.e. one before interval, one after and one in the afternoon. They would also prefer teachers to come to pupils for some subjects. Pupils did not appear to have any sense of a 'big picture' or how one subject might relate to another. They were able to articulate the differences among teachers and their expectations but saw no points of contact among subjects.

Parents' perceptions

Similarly, one parent's perception of S1 was that *'it seems very bitty'*. One felt that *'50 minutes does not seem long enough'* for teachers to get to know pupils as individuals. An observation from a third was that *'the primary 7 week seemed to be from Monday morning to Friday lunchtime, with Friday pm being for activities'* while the secondary offered only unmitigated work. However the most frequently expressed complaint was that *'parents get little feedback from secondary schools'* and concerns were expressed by the majority that *'the work sent home decreases'*, *'there are fewer parents' evenings'* and there is sometimes *'not a lot in the jotter'* – i.e. parents were offered little information to go on. Thus, although every parent

expressed a degree of contentment with the quality of the teachers and the teaching in the secondary schools, considered that their children had settled in well and seemed to be enjoying the experience, they indicated that they felt less involved, more remote and excluded than they had been from engagement with the primary school and certainly less sure about how to support their children's learning.

(c) Coherence and core skills

The conclusion drawn after many days of pupil shadowing was that there is, across the curriculum, a wide variety of teaching methods in evidence and that that the teaching frequently showed significant strengths – a finding in line with the judgement of HMI (SEED, 2002). However, there was evidence that: firstly, the range of teaching methods in use *within* subjects was often narrower than *across* subjects; and, secondly, while there were examples of good practice in all of the teaching methods which HMI suggest are associated with effective learning, there were no mechanisms by which the strengths of certain individual teachers or, indeed, of departments could be shared with others.

Increasingly, studies in which pupils have been shadowed suggest that coherence —one of the 5 principles of the 5-14 programme—is made extremely difficult by the structure of the typical S1 and S2 curriculum and timetable. It is extremely difficult for staff to generate an overview of pupil learning. Consequently, core skills, strategies for learning, common ways of working, and differentiation are all referred to by school staff as very difficult to 'manage'. Not only do teachers seem unaware of the content of lessons in other departments, but also appear to be in the dark about the teaching strategies applied. We found that while there was some evidence of good practice in terms of teachers building on prior learning within their own classroom, there was little evidence of teachers building on relevant learning done elsewhere.

The most serious consequence of this lack of coherence is that certain key skills may not be developed or reinforced and regression may take place - with serious consequences for pupil learning in S3 and S4, and even into S5. Two particular areas emerged from the shadowing data.

i) Continuous writing

It was not uncommon, during days of shadowing pupils to find that the class did very little continuous writing. Pupils wrote one or two sentences, completed sentences in worksheets, or gave one word answers. They copied from the board, wrote down mathematical operations, labeled diagrams, completed charts and graphs, etc. But the key skill of continuous writing, in all of its forms, a skill which has been practised regularly in most Primary 7 classes and which will be required in Standard Grade and Higher Still courses, appeared not to be developed very much further in the crucial years of S1 and S2.

ii) Reading

Reading is a fundamental requirement in secondary education. In every subject, at some point, pupils need to read - from books, worksheets, the board, the OHP. The demands vary from subject to subject, from reading for pleasure, to reading for information. The skills demanded may be implicit, so that skimming, scanning, predicting, finding key ideas, reading critically, etc. are all part of the skills which teachers know will be needed in the engagement with certificated examinations.

There was little evidence within our study of any coherent or consistent approach to the development of reading skills across the curriculum. In all of the schools, Support for Learning staff had already identified those pupils who had serious reading

difficulties before they arrived in S1. However, the day-to-day process of reading, in response to a variety of demands, was unquestionably expected to be within the capabilities of the rest of the pupils. Little or no assessment or teaching of reading skills took place. Thus, pupils who arrived in S1 who were not quite independent readers, were offered little support in meeting the reading demands required in dealing with textual matter compiled by subject specialists who knew little of the skill requirements embedded within their texts and workbooks.

One school had identified a group of pupils whose reading difficulties did not normally require the input of learning support but who, nevertheless, were not yet operating at their chronological age as readers. As a result, their daily engagement with learning was likely to be less successful, and more frustrating, than it should have been. In this school, there had been a commitment on the part of management and staff to give these pupils three half-hour slots per week of paired reading using senior pupils, and the gains made by pupils were considered impressive by the staff involved. But they subsequently faced a dilemma. How could they sustain the programme of support for the pupils into S2 while also supporting the incoming S1 readers? Resources were constrained, the pressure to get through the curriculum was keenly felt, and the initiative was becoming difficult to sustain.

While these two core skills are indicative of the problems of lack of coherence, the solutions are clearly not simple. Indeed, it could be argued that the drive to reduce the number of teachers experienced in S1 or S2 was likely to have less impact on the level of engagement and achievement of pupils than ensuring that teachers were aware of one another's content, methods, expectations and classroom management skills and the demands upon the learners which are common across all subjects.

(d) Class organisation – mixed ability, broad banding or setting?

i) Differentiation between classrooms

A recent review of research concluded that, with respect to streaming: 'Research shows no overall effect on pupil attainment.' and with respect to setting: 'There was little consistent evidence of advantages in terms of achievement.' (Harlen and Malcolm, 1997). In all the focus schools we found some form of broad banding or allocation of pupils to classes on the basis of their ability, attainment, level of learning or behavioural difficulties had been established, although this was not applied across all subjects. In some instances the restriction was because the teachers of some subjects did not want it, in other instances because logistically it was not possible given the timetabling arrangements, or because the school management had ruled it out. Indeed, there was no coherent pattern across the schools or across departments.

In our interviews with pupils, we found four who were not aware that they had been set, indeed it had even escaped the notice of some parents. In other instances, pupils were aware and liked it, since they felt they were not now being pushed faster than they could cope. In one group interview the pupils indicated that they did not like it, and one boy expressed resentment at his placing in a low set for maths since he had been in the top group at primary school. He gave the impression he was 'cool' and not really interested in school work, but was clearly aggrieved at his placement and described the discussion of setting with the researcher as 'embarrassing'. In one school in which broad banding did not generally take place, the overall numbers had been reduced from the norm in some classes but the proportion of pupils with learning difficulties had been increased in order to concentrate the activities of the Learning Support teachers. Pupils who considered themselves not to have learning difficulties expressed resentment in being allocated to the class. However carefully managed by the teachers, some pupils in this class clearly felt they were liable to be labeled by their peers.

For a number of teachers and school managers, one of the major advantages of broad banding was that it allowed these slightly smaller classes to be formed with the concentration of learning support. However, it was clear that in these and in other settings in which we observed learning support staff in action, they were fulfilling the rather narrow role of 'remedial teacher'. This was a role which was not objected to by some of the learning support teachers whom we interviewed; others clearly felt that their knowledge and skills in the analysis of learning and teaching interactions within the curriculum were not being used effectively or efficiently. One PT of learning support indicated that much more could be achieved if they worked with staff rather than just pupils, but that the latter was now taking up most of their time.

In *Achieving Success in S1/S2* (SOEID, 1998) it is argued that: 'The major drawback of mixed-ability organisation in secondary schools is the level of demand it places upon teachers to manage pupils' learning effectively'. However, there is also an acknowledgement that it is specific features of the secondary school that make the management of mixed ability particularly demanding. The major factor identified by secondary teachers is the fact that, unlike primary colleagues, they see so many pupils a week and for so short a time that it is difficult for them to get to know the pupils and thus to respond appropriately to their needs. Smaller classes or setting are their most frequently suggested solutions rather than the adoption of a primary type cross curricular approach which would allow them longer periods with classes of pupils.

Since attempts to apply the typical authority remedy, the reduction in the number of contacts through time tabling management, have proved so problematic, many schools were finding attraction in the HMI argument for setting or broad banding as a way of improving matters by reducing one aspect of variation, pupils' attainment level in the subject, consequently 'making fewer management demands on teachers than other forms of class organisation, and allowing teaching and learning to be more readily matched to pupils' needs' (SOEID, 1998). It must be remembered, however, that the procedure of broad banding or setting does nothing to reduce the number of pupils seen by the teachers, or to allow the teachers to get to know the pupils and their needs any better. There is the associated difficulty of securing any proper basis for the allocation of pupils to different bands or sets. Typically we found from our interviews that, although the results of the National Tests were not trusted by many teachers, they still formed the basis of pupil allocation to sets. In other cases sorting was on the basis of the subject teachers' own tests, which were not subjected to any evaluative scrutiny or moderation.

The researchers concluded that both the practices and the arguments advanced in the schools on setting, broad banding and mixed ability lacked coherence and there was no sound rationale for the decisions taken by schools and individual subjects. There was additionally no evidence of their evaluation of the impact on pupil achievements or attitudes.

ii) Differentiation within classrooms

The Inspectorate in *Standards and Quality in Scottish Schools* (SOEID, 1995) noted:

> *Whatever forms of organisation are used, the aim of organising pupils into classes, and of grouping them once they are in classes, is to promote effective learning and teaching. This demands effective differentiation.*

and:

> *A lack of differentiation was a recurring weakness in many departments. Many secondary teachers relied too much on whole class teaching, followed*

by individual work. They relied heavily on teacher direction with pupils as relatively passive participants.

Whether the classes were broad banded or mixed ability, we saw many teachers having difficulty in using within their classrooms any model of differentiation which genuinely seemed to take account of different learner needs and which kept the pupils engaged in the work.

> *Although we go on about differentiation, finding out where pupils are at, it doesn't happen as often as it should'* (PT Learning Support)

Some teachers indicated that features of the timetable, the period length etc. prevented work of the kind which they felt they would like to give pupils, and which they were sure the pupils would find motivating. For others, the difficulty was with their model of teaching - they felt if they didn't control and direct the transmission of content, the material wasn't properly 'covered'. For many, the key to differentiation was to find time to write five different levels of content on each topic within the 5-14 curricular areas and to allocate pupils to these as appropriate.

> A *lot of difficulties in S1 are due to coverage. The pressure to get through the curriculum.* (PT Learning Support)

> *There's such a lot in S1/S2- a lot to get through – there's little time to develop skills. We get through knowledge only.* (APT science)

THE OUTCOMES OF THE RESEARCH

The immediate outcome of the research was a report (Boyd and Simpson, 2000) in which the findings from the classroom studies and interviews were set out, illustrated and interpreted. The findings largely confirmed and illustrated the patchy nature of the standards of teaching, and illuminated some of the factors which lead to the perceived shortfalls in attainment of secondary pupils in comparison with primary (SEED, 2002 p.20). The report also presented two different frameworks, the first of which, *Towards the Learning Classroom,* had classroom practice as its focus, and the second of which, *A Framework for Developing a Policy on Learning and Teaching*, offered an aid for school policy formation. At the outset of the research, neither researcher had any clear idea of what a framework for policy development, specified by the Council as the key product, might look like. However, it became clear as the two researchers worked together, that we had a shared view that the process of any innovative classroom development or policy formation had to rest within each school; that the process of policy generation would probably be far more valuable than the ultimate product – likely to be a written document which joined the pile of 16 other school policies required by the Council; and that each school should be able to use the framework to generate whatever policy best suited their pupils, staff group, culture and conditions. Clearly, as researchers, we could hardly claim to be 'agenda free'! The final product supported this viewpoint: it offered questions relating to key principles in teaching and learning with the aim of prompting reflection, discussion and decision taking. These questions were accompanied by illustrative quotations from the teaching staff in the study together with accounts of school practices and additional relevant sources of information from accessible research, educational texts and reports.

However, it was the barely concealed agenda of the Council which we involuntarily carried with us as an aura which created the most difficulties, particularly in the early stages of the work. Overburdened already by what they regarded as evaluation overload, mindless bureaucracy and paperwork, and the relentless demands of every teaching day, the school staff were in no mood to have outsiders gathering

information in their classrooms which might be used against them in the future, forcing them against their will to change practice in the face of esoteric 'research findings'. We were acutely conscious that the Council's expectation was that our research would provide data supportive of their policies – especially those data which could be used by them to take a firmer stand against setting. Despite the aspirations of the exponents of the 'evidence based profession' model of teaching, research findings are not necessarily a neutral set of data to be used in an unbiased way to inform practice, but can be merely the latest weapon to be used with partiality in the combative arena of educational development. The provision of data which suggested that setting had any particular advantages over mixed ability would not have been an acceptable research outcome to many of the protagonists in this project. Clearly, at least initially, we did not feel we were working within a 'narrative bringing policy, teachers and research together in a seamless web of enlightened practice, in which research drives the action without prejudice.' (Ozga, 2001).

The function of the report which we produced was not simply to disseminate our findings, but to provide a text which, while acknowledging the complexity of the demands on staff and of their teaching practices, also attempted to reassure, inform, challenge and assist critical thinking and the decision taking of both the Education Officers and the school staff. We had no locus of power within the subsequent decision taking processes since we had no responsibility for the daily management of any of the schools or the authority system. Whatever we proposed, the Council could potentially use selected findings to dispose only their particular policy interests. In framing the policy-generating instruments in the way we had done, we were also conscious that we had provided the teachers with a tool to use in the furtherance of their own particular school development agenda, and they might well use it to become more professional and adept in their subversion of the Council policies or indeed of the preferred models of the researchers.

On receipt of the report the Council invited the researchers to present their findings in a seminar to the headteachers and subsequently to engage with a working group, including advisers, to examine how the findings could be fed into policy and practice. The researchers were also invited to present the findings to the school staff groups during inservice time and to engage with them discursively in exploration of the issues. Despite the evidence that different individuals and groups found different parts of the report of particular interest—primarily those parts which gave some reassurance of the positive nature of practices—the issue of lack of coherence in S1 and S2 became a focus for action. The schools, often building on ongoing work, began to look at ways of enabling teachers to share their professional practice with one another and to initiate developments which might reduce the generally acknowledged deficiencies of pupils' experiences in S1/S2. Fullan (1993) has argued that teachers need the support, interest and involvement of colleagues in planning and taking forward innovation, and the report had offered illustrations of innovations which had succeeded, and others which had failed or stalled, apparently because of lack of in-school support and the benefits of collegial brainstorming around difficulties. The idea of the school itself being the crucible for change was apparently shared between the three contributing groups – researchers, Council staff and school staff.

In order to address the lack of coherence in S1/S2 pupils' experiences most of the schools decided that pupil shadowing and classroom observation were to be built into their ongoing programme of continuing professional development, funded through the authority. This was designed to illustrate the range of experiences encountered by pupils, and to assist staff to identify and share 'good practice'. One senior management team made an early decision that classroom observation would be an effective strategy and that it would be compulsory for all staff to take part. Another SMT chose the same activity but decided to make it voluntary and to

delay implementation for a year until a 'protocol' for classroom observation was developed with staff, thereby containing the anticipated professional threats which such activities could potentially engender.

Despite the reiteration by staff that they had endured a huge burden of change over recent years, we saw key processes and procedures typical of many secondary school classrooms which in essence appeared to have changed little from those of thirty years ago. There appears to be an inherent stability in the organisational nature and professional practices of secondary schools which makes fundamental change almost impossible, through voluntary activity or otherwise. Although entering the classrooms of colleagues in other subject areas or seeing the whole daily experience of youngsters in their school is in itself an innovative activity for many teachers, research indicates that these experiences alone are unlikely to affect those factors which are known to be strong impediments to change, for example, rigid hierarchical school structures, impenetrable subject barriers and long established individual teaching practices (Hargreaves, 1994).

Our report had studiously avoided any critical analysis of the attitudes of staff towards primary colleagues, of the structural and organisational nature of schools, and of the power and accountability relationships between schools and the Authority and those other influential outside organisations which make effective management of change extremely difficult. For example, it was generally agreed that the entrance requirements of Further and particularly Higher Education fuels an examination system which relentlessly drives the activities and practices of the secondary school in S3-S4 to the detriment of S1/S2. To point to the necessity for change in areas where the schools and Authorities have no locus of power, or to offer analyses of secondary schools as increasingly dysfunctional organisations, or to unravel the rigidities and complexities of professional practices would have been considered grossly unhelpful and inappropriate. This charge we were determined to avoid as researchers by working wholly within the framework and agenda for the research set by the schools and the Authority. Throughout our research activity we maintained a posture of deference to the language, perceptions, aspirations and actions of those within the study. Although within the report we were contributing to and colluding with the view that the key to change rested within the schools themselves, such objectivity or contrary personal views which we held had to be set aside in order to provide a productive account of how things were in order to support colleagues in a difficult educational setting in moving on within their frameworks for thought and action.

As Ozga reminds us (2001: p. 36), 'we are all partisans but only some of us acknowledge it.' The challenge for educational researchers in the minefield of policy, management and practice is to negotiate a path through the crossfire and present their findings with wholehearted commitment to the lives of others, and with as much honesty as the rules of engagement warrant.

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