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The Work of Teachers in Small Primary Schools

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Summary

A review of the literature on small primary schools identified a number of problems: a lack of a definition of 'small', poor quality of evidence, a neglect of some important issues and the general picture of teachers in small schools having different work patterns from other teachers. This study was designed to test the hypothesis that the work of teachers in small schools was distinctively different from those in larger schools.

Data were gathered which were used to portray the work of the Key Stage Two teachers in two small Warwickshire primary schools. Of the seven individuals studied, two were headteachers with a dual teaching and management role. Participant observation, time diaries, interviews and systematic observation techniques were employed in order to gain a full picture of their working lives and to allow for triangulation.

Analysis of the data suggested that for the case study teachers, their work did not differ markedly from that reported in other studies of teachers in larger schools. This was true both in terms of the length and distribution of their time and the means by which they delivered the curriculum. Differences arose as a result of individual personalities and the proportion of a full-time teaching contract which each held. It was hypothesised that teachers working in small schools may have undergone the most intensification of their work; again, there was little to suggest that this was true for the teachers in this study.

Despite limitations in the data collected, evidence of the headteachers' work suggested that again school size was not the main influence upon their work. School status and individual personalities were influential in shaping their working patterns and priorities.

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Declaration

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CHAPTER 1

THE RESEARCH PROBLEM

The debate concerning the viability of small primary schools on educational grounds has been longstanding. Concerns about the ability of teachers in a small school to deliver an adequate curriculum were raised some thirty years ago in the Plowden Report (CACE, 1967, paras. 260 and 481). The issue has been brought into question further since the 1988 Education Reform Act both by the Audit Commission in 1990 which concluded that the teacher expertise in small schools was less comprehensive than amongst staff in larger schools (Audit Commission, 1990, p.28) and also in the discussion paper by Alexander, Rose and Woodhead (1992, para. 150).

Most of the literature (e.g. Bell and Sigsworth, 1987) has suggested that teaching in a small primary school is qualitatively different from other primary teaching: mixed-age classes with a spread of attainment; lack of expertise arising from a small staff; readiness to work 'beyond the bond' and pressures upon the headteacher with a dual role. There have been methodological problems in much of the research. Difficulties lie in the fact that there has been a lack of an agreed definition of a small school. Further, there have been methodological issues arising from research design and important omissions from the debate regarding small schools. The PRISMS project (Galton and Patrick, 1990) has been the most substantial research project to cast doubt upon the conventional picture that teachers in small schools differ from their colleagues in larger schools.

The objective of the research was to record and analyse the work of the Key Stage Two teachers in two small primary schools. Two schools, chosen to represent differences in age range covered in their classes, provided three mixed-age classes. The teachers, two of whom were headteachers with a class teaching commitment, were used to create case studies, with data gathered by observation, interview and diary record. The time diaries provided evidence of the teachers' work outside the school day. My presence in each class for an extended period allowed for a more comprehensive understanding of the individual circumstances of each teacher than would arise from completion of a time diary alone. The rich data generated from this designated sample of classrooms

in small schools allowed findings from the research to be put fully into context, in order for the reader to draw his own conclusions as to the relatability of the findings to his own situation. Theses relating to teachers as workers were also considered and it was argued that those working in small schools may provide the best cases for practical study of the thesis of intensification.

CHAPTER 2

REVIEW OF THE LITERATURE

The Small School

Whilst the number of primary schools considered small has diminished greatly, they still represent a considerable proportion of all primary schools in England and Wales. In 1988, 3991 of the 19319 primary schools in England and Wales fell into the category of having up to 100 pupils on roll (DES, 1988). Using the definition of 'small' to represent schools with fewer than 100 pupils of statutory school age on roll and fewer than 51 on roll to be 'very small' "there are currently about 2,700 small schools, of which around 700 are very small" (OFSTED, 1999a, p.81). These schools are mostly located in rural areas, yet small schools also exist in urban areas.

There are three reasons, identified by Francis (1992, p.100-101), as to why the debate regarding the viability of small schools has continued for so long. Firstly, there has been no agreed definition of a small school, and thus no common understanding of which schools were being discussed. Secondly, there is only a small amount of data on the development and progress of pupils in small schools compared to their counterparts in larger schools. Third, there are problems in interpreting what data there are, as small schools are so diverse in terms of their status, geographical locations and class structures: factors referred to as the 'givens' (Tomlinson, 1992, p.54, after Mortimore *et al*, 1988, p.9). For example, research into small primary schools located in urban areas has been limited (Grant, 1990).

The following review of the literature firstly presents an analysis of the defining characteristics of small schools. The existing research findings as well as available OFSTED data on the curriculum in small schools are then presented followed by those on classroom organisation, vertically grouped classes and differentiation. Finally, the work of teachers in the small school and notions of teacher professionalism are considered.

Defining the Small School

One of the main constraints in reviewing both the research literature and government documents on small schools, is the lack of any precise common definition of a small school. Such a lack of an agreed definition has clouded the debate on the future of small schools and allowed for only tentative conclusions to be drawn from the research.

In terms of policy-making, it is easy to see the impracticalities of dictating too rigid a definition of 'small', such as that employed by the government of Manitoba Province in Canada, which described a small school to be one "in which the number of pupils enrolled, divided by the number of grades taught is less than fifteen" (Bray, 1987, p.15). In this situation, schools being on the borderline of 'small' may well fluctuate in and out of this category annually, despite only minor changes in the number on roll. Secondly, if the cut-off point is too inflexible, schools just beyond the limit will receive no financial assistance or concessions for size. The OECD (1994) considered that the survival of each small school should be considered individually and commented on the Dutch variable-norm system for opening, closing and merging primary schools which operates "reflecting a consciousness of both the costs and quality of education . . . large schools if possible, small schools if needed" (OECD, 1994, p.21) whereby in order for a school to close, the number on roll can fall anywhere between "23 and 200 pupils depending primarily on the population density of the area and the distance separating the school facing closure and the next nearest school" (OECD, 1994, p.21). Small schools are a phenomenon appearing in all parts of the world, and there remains no common means for defining them. For example, the "New Zealand government has set the official minimum size for a school at nine students whereas in Hong Kong one school has only four students and two teachers" (Harber, 1996, p.3).

Pupil numbers have been most frequently used in the England and Wales as the criterion for defining the 'typical' small school in government documents, yet the accepted threshold size of a small school has been subject to frequent change over the last sixty years. The Hadow Report (Hadow, 1931) focused upon three examples of small schools judged to be typical of the time, the largest comprising one teacher and thirty pupils. With the demise of single teacher schools, the 1961

Ministry of Education document 'Village Schools' took a school of fifty pupils and two teachers to be typical of a small 5 to 11 primary school. There was a "further revision in official orthodoxy regarding a suitable size for a small school" (Galton and Patrick, 1990, p.4) with the publication of the Plowden Report which cited that "schools with an age range 5 to 11 should usually have three classes, each covering two age ranges" (CACE, 1967, para. 480), implying a maximum of approximately 100 pupils. In the same year however, the Gittins Report (CACE [Wales], 1967) recommended a minimum of sixty pupils. The 1985 White Paper 'Better Schools' recommended that schools should have at least one form of entry, suggesting a minimum size of approximately 150 in a school catering for both infant and junior age ranges. Recently, ninety pupils has been used as the maximum number when defining the small primary school as "the threshold size below which unit costs begin to rise steeply is usually between 80 and 90 pupils" (Audit Commission, 1990, p.25). However, the arbitrary nature of the threshold definitions was illustrated by Her Majesty's Chief Inspector in 1996. Writing to the House of Commons Education and Employment Committee he said, "those schools with fewer than ten teachers and 200 pupils (approximately 50% of all primary schools nationally). For convenience these schools were defined as 'small', although more correctly they could be described as smaller schools." (Woodhead, 1996). OFSTED has most recently used the number of fewer than 100 pupils of statutory school age on roll to define a small primary school and fifty or fewer such pupils to define a very small school (OFSTED, 1999a), yet the Small Schools Support Fund announced by the government in late 1999 is to be directed at schools with fewer than 200 pupils on roll.

Researchers have encountered similar difficulty in finding an agreed working definition of a small school. When pupil numbers alone are taken into account, 100 on roll is a common benchmark (Bray, 1987, p.15; Forward, 1988; Galton and Patrick, 1990, p.1; Coopers and Lybrand, 1996, para. 106, Warwickshire Inspectors, 1991). Howells (1982) defined a small school as one which had less than one form or age group entry giving a two year or more age range in each class; as he acknowledged, without a standard class size across LEAs, this is rather a vague notion but he contended that "as a rough guide, if one can assume an average class size of twenty-five, in a normal seven-class Primary School, this gives a break-off point of 175. Below this we can classify as a small

school" (Howells, 1982, p.1). In contrast to this, the study by Comber *et al*, 1981 into rural primary school reorganisation described a small school as having less than 50 pupils on roll (Comber *et al*, 1981, p.15) yet later, in the same study, a small school is defined as one in which children of more than one age group are placed together in every class. (Comber *et al*, 1981, p.32). All of the schools in this study were judged to be 'small', with the largest having 119 pupils, four class teachers and a non-teaching head (Comber *et al*, 1981, p.32).

Apart from notions given, for example by Howells (1982), that small schools should in some way be defined through their class composition, the cut-off point used to define the upper limit of the small school has often been defined arbitrarily, with the figure of 100 pupils being a clear round number and often cited. No further justification has been given in the majority of studies. Galton and Patrick (1987) justified their defining qualities in the following way: "Given the present circumstances of the curriculum debate, particularly the renewed emphasis on specialisation, schools with either fewer than 100 pupils or with four or fewer full time teachers covering the entire primary range from 5 to 11 were deemed to be small" (Galton and Patrick, 1987, p.7). Although curriculum provision seems a sensible rationale upon which to base definitions, it may be too inflexible in practice; a school with 101 pupils or 4.1 equivalent full-time teachers will encounter practically the same problems in terms of curriculum delivery and subject expertise as a school with 99 pupils or 3.9 teaching staff. The work of Bell and Sigsworth (1987) is widely cited, yet they failed to make any definition explicit, although part of their work involved a comparison of HMI inspection reports available from January 1983, where those derived from inspections of all schools with fewer than 100 on roll were compared to inspection reports from a sample of larger schools (Bell and Sigsworth, 1987, p.146). This again implies that 100 pupils on roll was taken as the upper limit for a small school.

Despite the fact that studies have developed their definitions differently, but with some precision initially, several exceeded their own definitions in practice. The PRISMS study (curriculum Provision In Small Schools) (Galton and Patrick, 1990) was sponsored by the DES and involved schools across nine LEAs. The selection of schools was initially to be made through a

stratified random selection. However, selection procedures were constructed to ensure that researchers had only a reasonable distance to travel and the lists were subsequently viewed by the LEAs to allow them to suggest alternatives if schools were seen as unsuitable, for example due to the absence, or recent acquisition, of a head teacher: in these cases a further random selection was made, although the nature of this randomness was not defined. This is perhaps the most well known U.K. study of small schools, which, in this case, were defined as those catering for the age range 5 to 11, with up to 100 on roll. Sixty eight schools were chosen for the study and despite the definition given for a small school, the final sample could be broken down by size as follows: 50 or fewer pupils: 31; 51 - 100 pupils: 32; 100 - 132 pupils: 5. In addition to the fact that some of these schools were larger than the agreed definition, with up to seven teachers, the age ranges catered for also did not meet the original criteria, with just under 20% being first schools, one a junior school and five being infant schools (Galton and Patrick, 1990, p.22).

The National Society defined a small school to be one with a "teaching head", that is, where the headteacher has the responsibility for teaching a designated class for the greater part of school-time during his or her normal working week" (National Society, 1991, p.3). Coopers and Lybrand (1996) reported two possible conditions, one of which must exist for a school to be defined as small. They were "fewer than 100 pupils, or fewer than the headteacher plus three full time equivalent teachers if that is larger" (Coopers and Lybrand, 1996, para. 106). Few of the studies referred to have found it necessary to categorise small schools further. The National Society used the term 'very small' in "those instances where schools under 30 pupils are being specifically implied" (National Society, 1991, p.3), yet it was acknowledged that this was an arbitrary definition, but one which was seen to be useful when focusing upon discussion points. Keast found the Audit Commission's 1990 analysis of small schools as those with up to 90 pupils on roll to be too generalised and, in consequence, the Exeter Small Schools Network study used four categories: those of less than 33 pupils on roll; 34 - 66; 67 - 99 and over 100 (Keast, 1991, p.3). Such distinctions below 100 on roll may yield useful information, but the category of 'over 100' remains logically as one with no upper limit.

Criteria for Defining a Small School

In reaching a definition of a small school, three fundamental criteria have been of importance to researchers, from which a fourth is implicit: those of the age span of pupils in each class, the class teaching commitment of the head teacher and the number of pupils on roll, which in turn has implications for the unit cost per pupil. These factors are not mutually exclusive and the individual school circumstances with respect to any one of these factors will to some degree affect the remaining two. From a financial point of view, the Audit Commission clearly demonstrated that when the number on roll falls below between 80 and 90 pupils, the unit cost per pupil begins to rise sharply (Audit Commission, 1990, p.25) and this must be considered in the equation but this is still a problematic definition. School policy and physical factors may strongly influence the unit costs and the issue is not as simple as it appears on the surface. For example, in the present study, lack of classroom space determined the number of classes at both case study schools. In other cases, mixed age classes may be maintained as part of school policy rather than because there are too few children of a single age to form a class.

In addition, defining a small school solely through financial factors is not helpful in highlighting educational differences between small schools and their larger counterparts. A small school will normally be one in which children spanning two years or more are together in the majority of classes; the definition used by Howells (1982, p.1) allowed for a school with six classes spanning the primary age range to be defined as small. In this case, children would span approximately 15 months, by all accounts hardly a greater age range than in a school with single form entry. Certainly the school's numbers would in this case greatly exceed those given by the Audit Commission and a school supporting six staff would also have a non-teaching head and not see itself as having the same advantages and disadvantages of a much smaller school.

The varying emphases which researchers have given to these four criteria reflect their main research interests and focus. Studies which have focused upon curriculum provision and quality (Comber *et al*, 1981; Howells, 1982; Galton and Patrick, 1990) have placed at least some emphasis in their definition of a small school upon the class composition either in terms of the number of

teachers or the age range in each class, while the teaching commitment of the headteacher is seen as of less importance and the unit costs not mentioned. In contrast, those studies which have focused upon the management of the school as a unit (Dunning, 1993) have taken the number of pupils on roll and therefore the unit costs, as well as the teaching duties of the head to be of most importance; here, the age span of pupils in each class has been less of a defining feature. This analysis however, still does not go all of the way towards accounting for the definitions which researchers have adopted.

Curriculum Provision in Small Primary Schools

The Historical Perspective

The concerns over the ability of small schools to deliver an adequate curriculum have been long standing and pre-date the introduction of the National Curriculum. Davies suggested that "one could easily object that the small primary school is virtually synonymous with the small rural school which has been a chronic educational problem since local education authorities were set up in 1902, and even before that" (Davies, 1975, p.76). However, a reason for interest concerning the viability of small schools began in earnest in the 1940s, when for two distinct reasons the then traditional village school fell into decline. Firstly, with the publication of the 1944 Education Act when selective secondary education was introduced through the 11+ system, the village school changed in structure from one providing elementary schooling, catering for the ages 5 to 14, to one which provided primary education for children up to the age of 11 only. With the development of secondary modern and technical schools in addition to the traditional grammar school, primary and secondary schooling became separate phases. Secondly, the rural population of England and Wales was in decline. "By 1950, village populations had decreased by 50% from the time when most of the village elementary schools had first been established" (Galton and Patrick, 1987, p.2). Bell and Sigsworth saw the post-war years as ones of neglect of interest in the small school: "priorities were formulated around the demands of implementing the 1944 Act and the massive task of post-war reconstruction. Set against those urgencies, rural primary education was a small affair. The

indifference was shown in the neglect to the fabric of its buildings and in the almost feckless passing references to rural schooling in the reports" (Bell and Sigsworth, 1987, p.54).

By the 1960's, the interest in small schools was renewed largely through the publication of the Gittins and Plowden Reports of 1967 which fuelled the debate concerning the future of small, rural schools. Whilst space was set aside in each of the reports to comment favourably on the work of teachers in such schools, for the first time, the small school was construed as deficient. School buildings were seen to "lag behind what is tolerable, let alone what is desirable" (CACE, 1967, para. 474). The criticism extended beyond the mere physical environment of the school: recruitment of teachers was seen as difficult and of assistant teachers even more so (CACE, 1967, para. 475-476). However, in terms of teacher recruitment, the 1960's were a period of teacher shortage generally (Caul and Harbison, 1989, p.119), which may have exacerbated this problem. In addition, Plowden noted the high costs (CACE, 1967, para. 480) and INSET and teacher support were seen as necessary (CACE, 1967, para. 487). Even the apparently favourable comments paid to such teachers might be thought to be a veiled criticism; for example on the surface, the following extract paid tribute to the small school teacher: "Often working alone in their schools and with few opportunities for discussion with their colleagues, sometimes heavily handicapped by their buildings, responsible for children with a wider age range than most junior school teachers think practicable, they have created schools characterised by warmth, mutual forbearance and an almost family affection" (CACE, 1967, para. 477). Yet, if one breaks down this comment it could be construed as substantially negative: teachers are isolated, under-resourced, over-stretched due to the wide age range and consequently are left with nothing that they can do which is educationally praiseworthy but to create a warm atmosphere in the face of adversity. Teaching standards, pupil progress and the curriculum are all neglected. The Plowden Report (CACE, 1967) suggested that small schools could limit pupils, not least in terms of their social and intellectual development, asserting that, "the older children and particularly the able ones may lack the stimulus of their peers" (CACE, 1967, para. 479) and that small schools were in danger of being restrictive in terms of educational provision and recommending that, "If the age range of primary education is extended to 12, it will be difficult to provide a sufficiently challenging curriculum for the older pupils who may become 'unwilling

veterans' unless an additional teacher is appointed or substantial help is given by peripatetic teachers" (CACE, 1967, para. 481). The views of Plowden were perhaps put most succinctly in the chapter which set out to summarise primary education in the 1960's: "It is the smallest schools which are least defensible both financially and, except in special circumstances, on educational grounds" (CACE, 1967, para. 260).

Plowden (CACE, 1967) questioned the ability of the limited staff of a small school to provide an adequate curriculum and noted that, "witnesses also agree that schools should, when possible, be large enough to justify a staff with varied gifts, and to permit a flexible organisation which does not force classes with a wide age range on teachers who are not convinced of their value" (CACE, 1967, para. 453). The Gittins Report stated, "The goals proposed by modern primary education challenge the limited space and resources of the small school", and further, "the opportunity for this kind of cooperation [use of specialist skills] is limited in a small school"; further, aspects of the curriculum, such as drama, physical education and expressive movement and science tend to be weak" (CACE [Wales], 1967). The debate has been ongoing. In 1975, Davies asserted that, "Many very small schools ought to be closed for educational as well as economic reasons" (Davies, 1975, p.77), and in 1982, Howells argued that "the curriculum in a small school can be restricted by the number of staff and their interests and specialisms" (Howells, 1982, p.16). Since the 1988 Education Reform Act, the question of whether small primary schools could adequately deliver the curriculum, especially at Key Stage 2, was brought into question further, by the Audit Commission (1990) and the discussion paper by Alexander, Rose and Woodhead (1992, para. 150).

Curriculum Provision prior to the Introduction of the National Curriculum

The Aston University study (Comber *et al*, 1981) provided evidence that fears about the breadth of the curriculum in small schools had been largely unfounded, "except in the case of science, which is a weakness in primary education by no means restricted to small schools" (Comber *et al*, 1981, p.34). The final report arose from a two year study into the "social and community implications of the reorganisation of primary education in rural areas of England" (Comber *et al*, 1981, p. i), with fieldwork carried out during 1978 and 1979. Of the five main objectives of the

study, the second concerned, in part, school resources such as staff, facilities and the character of the curriculum, including preparation for secondary education.

Following a postal survey of non-metropolitan LEAs in 1979, which assessed changes in the pattern of primary educational provision, six case studies, each comprising a small cluster of settlements, were identified and monitored; this phase was carried out through participant observation in the school and questionnaires sent to parents and community members, both occurring immediately prior to school closure and twelve months later. All of the schools visited were classed as small with more than one age group in every class, the largest having 119 pupils on roll with four teachers and a non-teaching head. The school visits were carried out by two "experienced educationists", one of whom interviewed all of the teaching staff formally and all of the ancillary staff less formally. During the interviews, the second researcher "gained valuable information by observation of the pupils at work and play while acting as a 'stand-in' for the teacher who was being interviewed" (Comber *et al*, 1981, p.31). In terms of the curriculum, the researchers felt that "the fears often expressed about the limited curriculum of small schools received very little support from the visits" (Comber *et al*, 1981, p.34). It was concluded that Music was well catered for in the six schools and P.E. was only restricted in one case, with two schools having their own swimming pools and some combining with other schools to form joint teams. The study claimed "several well-founded reports that secondary schools found them [the pupils] not only as well prepared academically as pupils from other schools but that they generally had a better attitude to work" (Comber *et al*, 1981, p.35). The interviews also revealed the concerns of some of the teachers "the danger of teaching to the middle . . . that they were not always able to avoid" (Comber *et al*, 1981, p.35). The sample of schools was very small and, perhaps more importantly, the quantity and quality of classroom data gathered were extremely limited. "The nature of the curriculum being afforded in each school was determined from an examination of the time-table and of children's past and present work and by observation of the pattern of a whole school day, as well as the responses made during the interviews" (Comber *et al*, 1981, p.33). Further, no indication of the observation instrument is given, possibly indicating that observations were not systematically structured. From this limited evidence, the research team considered that they had managed to appraise the breadth

and depth of the teaching programme and, in addition, to assess that the children in the small schools were to some extent disadvantaged from having only a limited peer group with which to play (Comber *et al*, 1981, p.33).

In the study by Howells (1982), the headteachers of 18 schools in Cambridgeshire were interviewed, but the data gathered by Howells, which were reported in the form of a descriptive narrative account, must be treated with some caution as the sample of schools comprised 3 first schools, 2 junior schools and 13 primary schools, with an overall range of between 38 and 266 pupils, thus suggesting that some were in fact rather large schools. This would be especially the case if, for example, one of the first schools had 266 pupils on roll, although information in this respect was not provided.

In contrast to the work by Comber *et al* (1981), the interviews conducted by Howells demonstrated that headteachers were already concerned with "the narrowness of curriculum expertise of the teaching staff", they already saw teachers as being faced with "an ever widening curriculum" and "although teachers are very good at 'coping' and 'adapting', this is not the same as taking the best educational advantage of a subject" (Howells, 1982, p.17-18). Support teachers, not necessarily specialists, had been introduced, with the intention of acting as a "catalyst or adviser in the school" (Howells, 1982, p.18), but found the planning of their work and the achievement of continuity in the schools difficult.

The difference in findings between Comber *et al*, (1981) and Howells (1982) may be accounted for by the different perspectives gained by the two researchers; that is, the work by the former used interviews with teachers, whereas the latter concerned the views of headteachers who, by the nature of their work, were possibly more able to give a more reflective opinion, gained through observing their staff working. In neither of these studies were the data systematically triangulated, and the perception gap which may exist between the opinions of those interviewed and reality was not considered. There was some contention by those interviewed by Howells as to the need for providing a written curriculum, which was not defined further, but here it is assumed that

this includes such items as policy documents, with the opinions of the headteachers being divided. Some saw the staff size as being sufficiently small to allow all to know what was going on. Scott suggested that, "it is dangerous to assume that every conversation between members of staff will constitute a staff meeting or that no formal planning of the curriculum is necessary. Indeed, time for deliberation should be found just as it would be in a larger school" (Scott, 1982, p.45).

An examination of all published results from formal HMI inspections was made by Bell and Sigsworth. They "found it impossible to detect any association between school size and the judgement made by HMI on the quality of the school's educational programme" (Bell and Sigsworth, 1987, p.146). In addition, they commented, "open any report on an individual school selected at random, and you are unlikely, so far as its comments on curriculum quality are concerned, to have much idea of its size" (Bell and Sigsworth, 1987, p.147).

Research by means of a questionnaire was conducted during 1987, into the curriculum of 'small' schools, in Northern Ireland and Scotland (Caul and Harbison, 1989). The two local authorities used in the study identified schools judged to be 'appropriate' where there was a teaching principal. Twenty two schools in Northern Ireland responded to the questionnaire and eleven in Scotland. The head teachers were asked to rank seven curricular aims in terms of the child's development; first or second priority was given by 67 per cent of the principals in Scotland to the child's social development, whilst in Northern Ireland, intellectual development was ranked first or second by 90 per cent of the respondents. Similarly, regional differences were identified in the relative rankings given to 'skills aims', which included categories such as maths, oracy, general knowledge and science as well as in terms of 'personal aims', such as self control, obedience, criticism and inventiveness and 'curriculum aims' such as kindness, courtesy, tolerance and good moral values. These categories however were not described further and so remain ambiguous, and the reader is left wondering whether 'criticism' listed as a 'personal aim' refers to the child's ability to give or receive it. The findings must, in addition, be treated with caution as the sample size was so small.

The curriculum offered to pupils was also investigated in the questionnaire. An analysis was carried out of the time given over each day to fourteen defined curricular areas and to the total of any others. It was demonstrated that the core of the curriculum was made up of work involving number, reading and writing and "that in both samples the areas of the curriculum often claimed to be neglected in small schools, i.e. music, craft, needlework and physical education appear not to be so" (Caul and Harbison, 1989, p.134). The findings showed a relative neglect of the teaching of science, with this subject ranking alongside poetry and R.E. in terms of time spent on the subject per week, interpreted by Caul and Harbison as suggesting a deficiency in teacher expertise and available resources. The main difference between the two regions was seen to be the greater number of subject areas which were given more than fifteen minutes per day teaching time in Scotland than in Northern Ireland. Caul and Harbison reflected that this "perhaps suggests an emphasis on a small number of core subjects" in Northern Ireland. (Caul and Harbison, 1989, p.132). The researchers added that "A number of the Scottish schools indicated that they taught an integrated curriculum focusing on environmental studies. This approach was not evident in the Northern Ireland sample" (Caul and Harbison, 1989, p.132).

The PRISMS Project

One of the largest studies to look at curriculum provision in small rural primary schools was the PRISMS project (Galton and Patrick, 1990). The project was written up in a report which describes the findings in far greater detail than previous studies (Galton and Patrick, 1987). It was financed by the DES over the three year period from spring 1983, and involved sixty eight schools from nine LEAs; "the number of observations collected over the two terms was equivalent to the entire amount collected throughout the three year period of the ORACLE study" (Galton and Patrick, 1990, p.23). A book on the project (Galton and Patrick, 1990) was published in 1990 which described aspects of the curriculum in small primary schools in England. As has been indicated earlier, Galton and Patrick defined 'small' as those schools with "typically not more than 100 pupils covering the age range 5 - 11 and not more than four teachers including the head" (Galton and Patrick, 1990, p.1).

The study itself took place between 1983 and 1986: that is, prior to the introduction of the National Curriculum. Whilst the fieldwork was conducted over a decade ago, the study is the most significant investigation of the curriculum in small schools to occur either before or after the advent of the National Curriculum in terms of both the size of the project and of the detail of observations.

Background information on the schools was gathered through questionnaires and interviews a year into the project. Two questionnaires were used: one sent to all teachers in the PRISMS schools, plus a random sample of 102 other schools in the nine LEAs, which focused on experience, qualifications, responsibilities, school management and opportunities for professional development; the other was sent to the headteachers of the PRISMS schools and which asked about the teachers and pupils in the school, external contacts and aspects of the head's role.

Semi-structured interviews were conducted with forty five heads and teachers from fourteen of the schools; they included questions on vertical grouping, class organisation, curriculum provision, the teachers' careers and the school's relationship with the community and the LEA. It is not explained in the study as to how the fourteen schools were chosen or whether they fell into those which met the original criteria of a small school, but the sample did include respondents from each of the LEAs concerned.

Pupil performance was also examined, with half of the pupils aged seven or over being tested at either end of the two term observation period, using shortened versions of the Richmond tests in mathematics and English, as used in the ORACLE project (Galton *et al*, 1980) as well as a mini-project called the Prismaston file which was specifically designed for PRISMS and which relied on appropriate levels of reading ability and the ability to apply skills such as map reading, measuring and drawing. Over the period of observation "1200 pupils were observed on at least five occasions. 1380 lessons were observed altogether giving 8000 observation records on teachers and 24000 observation records on pupils. Each teacher record contained fourteen observations and each pupil record had ten observations of behaviour and one of curriculum" (Galton and Patrick, 1990, p.23). A modified version of the ORACLE Pupil and Teacher record was used.

The Curriculum in PRISMS Schools: Perceptions and Practice

Teachers held divided opinions on the breadth of the curriculum which they felt they provided for their pupils and they were "well aware that small schools were vulnerable to the criticism that they could not provide a broad curriculum" (Patrick, 1990, p.43). Some saw that provision for subjects such as P.E. and music was limited, whilst others saw themselves as opportunists who found ways to enrich the curriculum and overcome difficulties. The teachers in the small schools of this study in many ways perceived themselves to be similar to teachers working in larger schools. However, as Patrick points out, there is the problem of the "perception gap" between teachers' claims and what actually takes place in their classrooms (Patrick, 1990, p.47).

The main finding of the PRISMS project was that in terms of curriculum coverage, small schools differed very little from their larger counterparts sampled in projects such as ORACLE (Galton *et al*, 1980) and subsequently the ILEA Junior Schools Study (Mortimore *et al*, 1988). This is a significant finding given the differences between PRISMS and ILEA schools, where the latter contained many inner city schools.

The information presented in the PRISMS project suggested that "the curriculum provision which small schools make is similar, in many respects, to that described in earlier studies of larger suburban schools" (Galton, 1990, p.48). Small schools did however spend less time on the 'basics' than larger schools yet there was a good representation in science, history, geography and art. Whilst time apportioned to this broad range of subjects was encouraging, the report considered too much of the pupil's time to be textbook orientated and limited; thus the quality of education being provided was somewhat limited and in rural areas, schools tended to neglect the surrounding environment. From the observation periods, the proportion of time spent by pupils on each subject area was found to be broadly comparable to earlier studies such as ORACLE (Galton *et al*, 1980) and the ILEA junior schools study (Mortimore *et al*, 1988).

Patrick (1990) found that only four of the 45 teachers interviewed considered the curriculum, defined in terms of subject content, to be limited in range when compared to that in larger schools.

Of the remaining majority, there were two groups: the first group expressed uncertainty over their coverage of the curriculum. Some of this group saw the limits in expertise that a small staff can bring to a school, especially in the areas of music and P.E.. It was not that they saw themselves as failing to cover a broad curriculum, but instead they questioned the depth to which they could teach those areas. Others saw that their awareness of limitations and the resulting pressure, forced them to develop their teaching strategies in areas which they felt weak, without having the benefit of a specialist on hand. The second group felt that provision was similar to that in larger schools, but only so as a result of the extra work which they put in (Patrick, 1990, p.42 - 43). It seemed that from the data collected in the PRISMS project, both through interview and observation, that whether the staff of small schools felt confident in delivering the curriculum or not, they believed themselves to be meeting the challenge.

In terms of the resources used by the children, the teacher was used most frequently. For over a quarter of the pupils' time, the teacher was a resource; published work cards were used as a resource for more than twenty per cent of the time and apparatus was in use for approximately fifteen per cent of the time. Other pupils, the environment and computers were used infrequently as were recorded broadcasts. The study also looked at curriculum integration and concluded that "integration occurred far less frequently than one might expect in the light of recommended practice" (Galton, 1990, p.62).

Observations were described as largely having taken place inside the classrooms, although it is not made clear as to what proportion of the total these accounted for, nor for the proportion of the school day that this represented. Across all ages, over twenty per cent of pupil time was spent on work involving aspects of mathematics, most often number work. Forty per cent of pupil time was spent on tasks involving language, predominantly English as a first language. Approximately ten per cent of the observations were concerned with science and fifteen per cent with artwork. Other subjects were recorded for approximately 5 per cent of the time. Only small amounts of P.E. were recorded as occurring in the classrooms, but the 'day sheets' which recorded curriculum activities

over the whole day showed that P.E. dance, drama and movement accounted for 9.4 per cent of the total time.

Curriculum Provision and Teacher Expertise since 1988

The discussion paper by Alexander, Rose and Woodhead saw that "the issue of small primary schools must be addressed squarely as one of curriculum entitlement for their pupils. It is as wrong to assume that a small school cannot meet the full range of requirements of the National Curriculum as it is to assume that a large school can, but the balance of probability tends that way" (Alexander, Rose and Woodhead, 1992, para. 150). The Audit Commission report (1990) reached a similar conclusion, with the finding that for all subjects, the expertise amongst teachers in small schools, defined as those with fewer than ninety pupils on roll, was less comprehensive than amongst staff in larger schools (Audit Commission, 1990, p.28); in this case, subject expertise was defined as one or more of the teaching staff having studied that subject either as part of their initial teaching qualification or having followed an in-service course of at least 30 hours in that subject. The problem was demonstrated to be most acute in Art, R.E., Geography Computers and Games, with only between 20 and 40 per cent of small schools having subject expertise present in these subjects. Less than 50 per cent of small schools had specialists in Mathematics compared to their counterparts in the two categories of larger schools (those with a role of between 90 and 210 pupils and those with more than 210 pupils) who, in well over 60 and 80 per cent of cases respectively, were classed as having Mathematics specialists. A considerably smaller percentage of small schools possessed subject expertise in the subject of English. Expertise in the subjects of Music and Technology was not reported. The problem remained a real one according to Osborn and Black who concluded that problems were alleviated by collaboration within cluster groups (Osborn and Black, 1994, para. 1.18).

If this comparison of teacher subject expertise is related to the evidence which existed on curriculum provision, then one might expect that the subjects of Art, Geography, R.E., Games (taken to mean P.E.) and Computers would be most neglected, and that lack of expertise might imply also a lack of confidence and therefore a reluctance to teach those subjects. However, Caul and

Harbison (1989) and Comber *et al* (1981) found that the subject of P.E. was rarely neglected; in addition, Galton and Patrick (1990) demonstrated that Science, History, Geography and Art were well represented in the small schools sampled. However, it cannot be assumed that time allocation is directly linked to quality of teaching or levels of pupil attainment.

The National Curriculum brought the benefit of reducing repetition in terms of curriculum content yet elimination of duplicated material is not an easy achievement for the staff of small schools. Where classes are grouped vertically across a whole Key Stage or more, then there needs to be long term coherent school planning. Webb argued that "the mechanics of this can be very complex. For example, whilst schools have been advised that the history units need to be taught on a four year cycle, it is recommended that science is taught on a two year cycle because of the spiral nature of the curriculum" (Webb, 1993, p.4).

Information from the PRISMS project (Galton and Patrick, 1990), which gathered data prior to the introduction of the National Curriculum was used as a baseline in the Rural Schools' Curriculum Enhancement National Evaluation (SCENE) project in 1989 when, following an initiative in six hundred schools across fourteen LEAs spanning either three or five years, curriculum provision was once again examined. The SCENE project used the same curriculum categories as those in the PRISMS study to investigate the range of curriculum provision in small schools and to assess the success of the Educational Support Grants.

Evaluation took place through the examination of six case study groups derived from the fourteen LEA projects. From each case study group, one LEA project was studied in-depth through school visits by two researchers to at least four schools representing two clusters: the researchers spent at least four days with each of these projects, although the proportion of time spent in the sample schools is not detailed in the final report. For each in-depth project, one or two companion projects were studied in less detail over two days, with one or two researchers collecting data from two schools. Each project team also visited one feature in each project which was deemed to be 'special' and parents and governors were met with in twelve of the LEAs. "Seventy per cent of the

schools were selected at random by the research team from within contrasting clusters suggested by their LEAs. Thus the LEAs were able to select clusters in which they felt strategies had been successfully implemented . . . The remaining schools were suggested specifically by their LEAs to illustrate particular features of their projects" (Galton *et al*, 1991, p.7).

The study revealed a "clear extension in the range of curriculum provision" (Galton *et al*, 1991, p.7), with science being observed as frequently as activities involving mathematics or English, and with technology being involved in a significant proportion of the observations, whereas in the previous study it had not been observed at all. The quality of the curriculum was seen to have been improved with respect to the nature of the activities in which the children were engaged, with "an increase in the number of higher order cognitive tasks such as the amount of planning and classifying, and a decrease in lower order activities such as copying and matching, compared with the PRISMS survey" (Galton *et al*, 1991, p.8). The researchers claimed that the input of advisory teachers to work in schools on science and technology led to the greatest changes in these curriculum areas.

A survey of nineteen small schools with fewer than a hundred pupils on roll, was undertaken in Warwickshire in September 1991 (Warwickshire County Council, 1991). The means of data collection was not detailed in the report but the writers argued that teacher expectations were "high in the area of behaviour and general socialisation but much less so in relation to cognitive performance" (Warwickshire's Inspectors, 1991, para 3.7.1). Further, the inspectors who carried out the survey were critical of the planning for learning as much failed "to address the issue of a coherent learning experience for the child" (Warwickshire's Inspectors, 1991, para. 3.1.2).

The INCSS project (Hargreaves *et al*, 1996) used questionnaires designed to discover the perceived competence and confidence of the teachers in small schools to implement the National Curriculum. The questionnaires were also designed to test the proposition made in the PRISMS project that teachers gained in confidence of teaching National Curriculum subjects through working together in clusters and that the more developed the cluster, the greater their confidence. The

schools were chosen from three LEAs which each were characterised by different policies towards small schools and clustering. LEA 1 encouraged cross-phase support and development groups of 15 to 20 schools, with schools having the option to bid for funding to develop smaller self-help groups; LEA 2 pioneered clustering in the 1980's and did not qualify for rural schools ESG funding so clusters had continued to exist on a self-help basis and LEA 3 had been part of the ESG programme and had earmarked funds for cluster development. The schools were randomly selected from those with between 60 and 100 pupils on roll. In autumn 1992, questionnaires were sent to the Year 3 teacher and headteacher. Here there was some inevitable overlap, and replies were received from 53 schools. A year later, in autumn 1993, a second, shortened questionnaire was sent to the 53 schools, with responses received from 37 schools, with some variation from the first year in the individual staff who replied. Two samples were analysed: that of the 28 teachers who responded to both questionnaires and those respondents from the first questionnaire when compared to those to the second.

Respondents rated their own competences on a four level scale of which Level 2, 'I am able to teach my own class', was reported most frequently, with 45 per cent or more teachers recording this level of competence in each subject. It was concluded that "with the exception of competence in music and confidence and competence in I.T., all mean scores fall on or above the mid-point of the respective scales. This suggests that teachers felt both confident and competent in delivering a broad curriculum" (Hargreaves *et al*, 1996, p.93). This conclusion was drawn with appropriate caution; as the authors noted, measures of confidence and competence cannot be equated with effective teaching and the admission of a personal deficiency in either of these two areas may be interpreted by the teachers involved as an admission of inadequacy. The writers commented that similar studies conducted with teachers in larger urban and suburban schools demonstrated lower levels of perceived competence and confidence and conclude therefore that the teachers in their own study were probably "expressing a genuine view and in doing so were reflecting differences between teachers in small and larger schools" (Hargreaves *et al*, 1996, p.94). However, this raised level of reported confidence and competence in small schools could be interpreted as a defensive reaction by the teachers involved as, in their case, the admission of lacking competence and confidence could be

construed not merely as a personal deficiency, but also a weakness in the small school itself. The subjects of Music, R.E. and Technology were found to be those which teachers had least confidence in teaching in Shropshire primary schools (Shropshire Education Service, 1995, para. 1.5), despite Year 2 Technology SATs results for 1992 in this county being higher in small schools than their larger counterparts (Shropshire Education Service, 1995, para. 1.6).

OFSTED concluded that “it is a tribute to the commitment of teachers in small schools that, by and large, they are able to teach the full range of knowledge, skills and understanding required by every subject in the National Curriculum” (OFSTED, 1999, p.3). It was further noted that the teachers in small schools worked hard “to make sure that their combined expertise is not impaired by a lack of subject knowledge”. However, there was seen to be “a small but significant minority (of schools) where the curriculum is narrow and offers little by way of enrichment or special interest” (OFSTED, 1999, p.4). Whilst these comments seem to show the curriculum in most small schools to be, in the eyes of the inspectors at least, adequate, it is not made explicit how the teachers were managing to achieve this. However, the use of other adults and provision of extra-curricular activities supported by parent volunteers were seen to be important and were judged to be lacking in the more remote small schools with poor local facilities or where pupils who could not stay after school due to the long distances to be travelled home. Links with parents and the community were also judged to cultivate a good ethos (OFSTED, 1999, p.4).

Classroom Composition

An inevitable feature of the small school is that it will comprise classes which are vertically grouped, that is, the birthdays of the pupils span more than a twelve month period. Traditionally, such classroom organisation has been viewed to have some benefits, in that older pupils will develop a sense of responsibility for those younger than themselves, and conversely, the younger class members will gain in maturity as a result of mixing so closely with more mature children. In addition, Gregory (1975, p.80) presented the argument that the experience of being in one class for several years leads the child to experience a continuity of teaching methods. Evidence suggests that

the advantages of mixed age classes are not so straightforward (Hargreaves *et al*, 1996, p. 84; Galton and Patrick, 1990).

Although the majority of research on small schools has focused upon the content of the curriculum and the standards which pupils achieve, it has been acknowledged (Galton *et al*, 1991) that more work should be carried out in order to identify the ways in which classrooms in small schools are managed by teachers. In the small school the teacher may be assigned to a class which not only covers the usual spectrum of ability, but has the added dimension of containing pupils spanning a three year, four year or even greater age range. Pupils who spend several years in one class may have a very different set of needs to those in larger schools who move class every year; programmes of study need to be set up to allow for differentiation in terms of both age and ability as well as meeting the requirements of the National Curriculum. In the Aston University study teacher interviews revealed that the "greatest difficulty remained coping with the wide age and ability ranges" (Comber *et al*, 1981, p.73). It has been claimed that teachers of mixed age classes used more individual and small group teaching to deliver the curriculum than colleagues in larger schools (Barker Lunn, 1984; Hopkins and Ellis, 1991) and that in small schools this led to raised standards of work and increased school effectiveness (Hopkins and Ellis, 1991, p.121). It became apparent in the work by Vulliamy and Webb that teachers found difficulty in catering for the broad range of ability, and saw "the need to be very flexible in their teaching; one likened it to 'spinning plates', while another said that 'I'm quite prepared to sort of scrap any plans for a particular age group if it's proving too difficult to get effective work from the younger ones - you know, I'll set up a mini-topic or do something else" (Vulliamy and Webb, 1995, p.31). Whilst one school brochure in the study by Vulliamy and Webb, advocated the integrated day as a means of organisation particularly suited to the small school, only one of the nine small schools studied operated a "truly integrated day" which involved an elaborately devised timetable of activities.

The teachers interviewed in the PRISMS project, displayed mixed feelings about the vertical grouping which was inevitable in their classes. However, they "accepted vertical grouping as part of the job and an inevitable concomitant of life in a small school" (Patrick, 1990, p.35). Whilst some

saw the advantages of the younger children being in contact with those who were older and vice versa, most thought that the diversity of the class made planning more difficult, put undue pressure on the younger children and caused older pupils to become bored or to be held back.

In the interviews, teachers felt that they made use of both whole class, group and individual teaching, although the first was treated with caution as it was seen to encourage the teacher to "aim at the middle" (Patrick, 1990, p.36); group teaching was used largely for administrative reasons (practical seating arrangements rather than opportunities for collaborative work). Even though it was seen to make their job harder, individual work was seen as the most appropriate means of class organisation, with the recognition that as a result much of the work was book-based. It was again concluded that teachers of small schools differed very little from their colleagues in larger schools. In the observations, the teachers' perceptions were borne out, in that by far the most common form of classroom organisation was through individual work, especially in the core subjects, with schemes being widely used as vehicles on which to measure progression. Assessment and allowing for appropriate progression were seen as particularly difficult both to define and to achieve by the PRISMS teachers.

On the basis of these classrooms, classes in small schools produce an atmosphere of hard work and quiet. In contrast to former classroom studies which produced an average of about 70 per cent (Alexander, 1992; Galton *et al*, 1980; Pollard *et al*, 1994), time spent either on-task or engaged in routine activities amounted to 86 per cent of the total observations, with a correspondingly low percentage of time spent engaged in disruptive behaviour. It may be however, that this 'hardworking' atmosphere was generated as a result of the monotony and low level of tasks or individualisation of tasks that the children were expected to do, due to the already demonstrated reliance on published schemes and books in such classes. It could also be explained as a result of the combination of individual tasks being set by the teacher and a lack of other children in the class of similar age and interests; indeed, children were rarely given collaborative tasks. Only 5 per cent of all observations included collaborative group work, and only a further 4 per cent involved collaboration in pairs

(Hargreaves, 1990, p.82). Teacher interaction with pupils was similarly biased towards the individual (59%).

Teacher and Pupil Behaviour

Grant (1990) provided a descriptive account of the classroom practices of teachers in twelve classrooms in five small, and notably city, schools, which the author acknowledged could be "no more than an exploratory exercise" (Grant 1990, p.136). The classes which she researched displayed certain commonalities: class sizes were small to average (11 - 26 pupils), the pupils spanned more than one age group, with some being of junior age. These schools differed from others in the literature because of their urban location. In these classes, nine of the twelve teachers favoured individual instruction as a method of teaching and classroom organisation, especially in the 'basics' of English reading and mathematics; the remaining three teachers used a variety of methods of organisation. The level of individual instruction claimed by the nine teachers in the interviews was borne out in the observations of mathematics where 94 per cent of their time was organised this way. Grant noted that "the high incidence of individual work was the most striking feature of the study" (Grant, 1990, p.137) and suggested that two factors, namely class size and class composition could have influenced these teachers' practices. The former did not seem to be the critical factor, despite the fact that smaller class sizes would make individual instruction more easy from a classroom management perspective. Only one of the nine teachers said that she varied her teaching style to match the size of the class, and when asked to rank factors which influenced their thinking, class size was ranked sixth out of nine factors. The teacher of the smallest class in this sample, one with only eleven pupils, said that she had "never got to grips with a wholly individualised approach and preferred to organise her class on a group or class basis" (Grant, 1990, p.138).

Class composition was demonstrated to be influential: all classes were vertically grouped with age ranges spanning up to four years; in two cases the class composition changed through the year with pupils moving out of the class to accommodate a second intake of five year olds. Teachers expressed their reluctance to class teach as a consequence of mixed-age grouping, supporting the earlier research by Bouri and Barker Lunn (1969) which indicated that teachers of mixed age classes

were more predisposed to individualised instruction. Comments in the interviews led to the conclusion that "teachers may be operating from internally constructed norms which are not made explicit but which provide rough and ready guides as to the appropriateness of tasks for children at different ages and at different stages of intellectual development. Whether these are adequate constructs to work from is questionable" (Grant, 1990, p.139). Research suggests that the matching of tasks to ability has been a problem for teachers of mixed age classes for a very long time (Bouri and Barker Lunn, 1969; DES, 1978). Grant's study was supplemented by a questionnaire, responded to by 133 teachers from 33 schools of varying sizes, the results of which revealed that the teachers in small schools were typical of their colleagues in larger schools "and that their organisational methods were a reflection of typical primary practice, rather than a response to the distinctive features of the small school classroom" and that "the prevailing orthodoxy in primary schools was towards individualised tuition" (Grant, 1990, p.139).

Having found that teachers in small schools appeared to organise classes similarly to their counterparts in larger schools, Grant went on to explore whether the nature of the individual teaching was the same in both samples. Both defined individual work as that which is fitted to the different ability levels of the pupils, allowing them to work at their own pace, mostly used in the promotion of the basic skills of reading, writing and number. However, in practice, the individual work observed in the nine classrooms "was grounded almost entirely in basic schemes of work . . . Individualised practices seemed to amount to children tracking through prescribed texts at their own pace" (Grant, 1990, p.140). Grant concluded that "the message given out by teachers was a contradictory one. On the one hand they were expressing a view of learning as an individual process shaped as much by the learner as the teacher. On the other, they were operating a management system which was almost entirely teacher directed and which seemed to take little account of differences in the way that children might learn" (Grant, 1990, p.141).

OFSTED (1999) claimed that "careful planning and skilful classroom organisation" could make teaching in small schools "just as effective as in larger schools, although it is a particular challenge to provide a high quality experience for the youngest pupils" (OFSTED, 1999, p.3).

Pupil Performance and Standards Achieved

Several studies have looked at the standards achieved by pupils in small primary schools, and although they have largely concentrated on formal tests and skills in the subjects of English and Mathematics rather than pupil achievement in the more creative aspects of the curriculum, they do, on the whole, show higher standards being achieved. For example, the study which followed the progress of 17000 primary pupils in the subject of French over a ten year period by Burstall (Burstall, 1974, cited in Bray, 1987) found that "the test performance of the pupils in small schools was consistently superior to that of the pupils in larger schools" (Bray, 1987, p.34). Gregory, commenting upon her own experience of teaching in small schools in Hertfordshire, Leicestershire and Bedfordshire, saw children in the small classes of village schools who were judged to be average or just below average in ability had a reading age that matched their chronological age. She felt that in larger classes they would have done less well and, in consequence, the children "might well be classed as backward readers" (Gregory, 1975, p.80). Recent evidence from the Shropshire Small Schools Survey revealed that the 1992 SATs results for Year 2 children in small schools for English, Mathematics, Science and Technology "were significantly better than for Shropshire schools in general" (Shropshire Education Service, 1995, para. 1.6). Sher, in a report on rural education in urbanised nations for the OECD, commented on the inconsistencies in the research findings "There are bits and pieces of evidence that students in rural schools do as well or better than urban students on basic literacy and mathematical tests. Other reports give the impression that rural student attainment is below average" (Sher, 1981, cited in Caul and Harbison, 1989, p.122).

Socio-economic class is a relevant factor in the argument surrounding pupil achievement in small and especially rural schools. "The rural child has often been stereotyped as dull and biddable and in the early fifties, group attainment tests seemed to show that achievement levels of children in small rural schools were lower than those of urban children. Yet further examination in 1959 suggested that when socio-economic class is taken into account those differences disappear" (Davies, 1975, p.77). The rural population however has undergone considerable change since the 1950's: the local rural population has been replaced in many cases by middle class commuters who have altered the village from the traditional community, so often prized by those arguing for the continued

existence of the village school, into dormitory settlements. This demographic change will inevitably have changed the educational backgrounds and aspirations of parents and might be expected to contribute to raised standards; "small schools should now out-perform larger schools because of their more favourable intakes" (Galton, 1993, p.18). OFSTED has reported that "the majority of small schools are in relatively affluent areas with above average socio-economic indicators and where, for example, the eligibility for free school meals is below average" (OFSTED, 1999, p.1).

In the PRISMS study (Galton and Patrick, 1990) two approaches to assessing pupil attainment were adopted, firstly by administering standardised tests in English and mathematics. These were condensed versions of the Richmond tests, the same as those used in the ORACLE project, thus allowing some comparison. These were administered to the pupils in September, 1983 and again in May/June 1984; each test had an imposed twenty minute time limit (Galton and Patrick, 1987, p.273). In comparison with the English test results of the ORACLE project, the PRISMS pupils at age 8+, 9+ and 10+ performed better with respect to punctuation, usage and spelling of English, but at each age answered fewer questions concerning vocabulary correctly. In both the area of mathematical concepts and of mathematical problems, at 8+ the PRISMS pupils outperformed the ORACLE pupils; however, at 9+ and 10+ they fell slightly behind in terms of the mean percentage of correct answers (Galton and Patrick, 1987, p.280). Galton and Patrick commented that the two projects were separated by a seven year period over which time testing in English and Mathematics had become more commonplace. They concluded that "the issue regarding the equivalence of standards must remain an open one" (Galton and Patrick, 1987, p.281) and that despite only testing a narrow range of skills, they produced results similar to those of Nash (1978) in that children "appeared to perform no worse and in some respects better than an equivalent group of pupils who took substantially the same test in larger suburban schools some seven years earlier" (Galton and Patrick, 1987, p.281). They concluded "that children in small schools do not appear to be underachieving in these basic curriculum areas" (Galton and Patrick, 1990, p.171). The children were tested again, some eight months later in order to assess progress. In both the ORACLE and PRISMS studies, the test scores were analysed after a residual change score had been calculated, thus eliminating initial "differences due to inequalities arising from the distribution of achievement

within different schools" (Galton and Patrick, 1987, p.284). This calculation did not account for differences in intake due to the school's catchment area and other variables. Indeed, Galton and Patrick note that the inner city schools in the PRISMS project had a higher proportion of ethnic minorities and voluntary aided schools. The sample of children was randomly divided into two: A and O; only significant differences which existed in both groups were seen to hold. With respect to progress in language and mathematics no differences were found, yet there were differences attributable to schools as distinct from classes within schools.

The second approach to measuring pupil performance was through assessing achievement in the broader curriculum, taken to be the areas of geography, history, art, science and the study skills associated with these subjects as well as "applied mathematical and extended language skills . . . with a theme grounded in the common experience of school children" (Galton and Patrick, 1987, p.297). For this, assessment materials, known as the Prismaston File were prepared to be used under normal classroom conditions rather than under test conditions. Two versions of the file existed, for upper and lower juniors, yet they were similar in terms of themes and format. The large majority of items required answers to multiple choice questions. In an outline of the assessment given in the 1987 Report (Galton and Patrick, 1987, pp. 299-301), it is unclear which elements were designed to assess science and art or how such an assessment was achieved. The final analysis considered 962 answer books: 544 from upper juniors and 418 from lower juniors. Of this sample, 216 upper juniors and 202 lower juniors had also been the focus of observation at least five times, "there were therefore sufficient data to relate their classroom data and curriculum to their Prismaston scores" (Galton and Patrick, 1987, p.303). From an analysis of the assessment results, several broad themes of relevance emerged. Firstly, there was a positive relationship between the scores achieved on the shortened Richmond tests and the Prismaston file; when the comparison between basic and study skills was made for 66 classes as opposed to individual children, the correlations were similar, suggesting that pupil ability rather than teacher influence was significant in determining problem solving ability. Secondly, the effects of class size and age composition were examined, by focusing on the scores of ten-year olds in the study, as this was the age for which the upper junior version of the Prismaston file was originally designed. The data for the 44 classes (Galton and Patrick, 1987,

p.321 [listed as 43 classes , p.319]) suggested that children in wider age range groups, that is classes with a four-year age range or more, when set against those with a two year or less age range, were more successful in the skill of reading for reference. Extremes of class size, that is below 20 (a sample of 12 classes) and above 24 (a sample of 16 classes) were examined; the only significant results gained from this was pupils in the smallest classes outperformed their peers in larger classes on the 'advanced comprehension factor' (Galton and Patrick, 1987, p.320) and that children in smaller classes recorded more teacher assistance in completing the questions. The latter was seen as a "crude measure of teacher help" which "supports the teachers' opinion that they can give more individual help in smaller classes" (Galton and Patrick, 1987, p.321).

Identification of Children's Needs

Before one can begin to differentiate activities in the classroom for children of differing ability, one must first have identified each child's ability. Howells (1982) suggested that "the identification and accommodation of gifted and remedial children is more difficult in a small school" (Howells, 1982, p.13). However, a number of the 18 headteachers interviewed questioned this premise who "felt it no more difficult to identify the gifted or remedial child than it would be in a large school. The organisation of most small schools, with their small classes and use of individual work programmes was ideally suited to such children" (Howells, 1982, p.13). The heads went on to assert that small schools made better provision for pupils as a teacher who worked in the inner city may well find it more difficult to identify a gifted child. The heads also found agreement in the statement that small numbers meant a smaller remedial problem and commented that small infant classes produced fewer reading difficulties at junior level. Gifted children were seen to be particularly well catered for as, in the authority in question, the most gifted children had the opportunity of transferring to secondary school a year early.

Match of Task to Ability

The issue of 'match' or differentiation is one which rose in importance in the late 1970s with the publication of the 1978 HMI survey 'Primary Education in England (DES, 1978) which

identified the problem that children were most usually required to complete work which was insufficiently challenging and that the tasks for the most able pupils was particularly ill-matched.

In 1981, Bruce wrote as the headteacher of a large junior school which had experienced a fall in number on roll from 353 pupils in 1974 to 251 in 1981 (Bruce, 1981, p.53). Whilst not a small school, staff reductions had been encountered with the accompanying loss of expertise in certain subject areas. The 1978 Primary Survey was seen by Bruce to be relevant to her situation because of the comments on match of work to ability, yet she criticised the report for its lack of a solution as to how match could be achieved (Bruce, 1981, p.56). Problems with the match of task have been acknowledged in the work of Galton and Patrick (1990) which concluded that in any classroom, the "curriculum tended to be defined by the dominant age group within it" (Galton, 1993, p.15); the example is given of a nine year old in a class where the average age is eight, but spans from seven to ten, who will be given tasks which most closely resemble those of eight year olds. However, where the average age was ten, then the nine year old would be given tasks more closely corresponding to those for a ten year old age group. This was seen in part to be a result of school organisation where children could be 'promoted' or 'held back', depending on their ability, but was not observed often enough to be thought of as the main reason for such differences in match.

In contrast, behaviour matched that of children of similar age, rather than tending towards the mean age of the class, which raises questions about the view that the younger children in vertically grouped classes will modify their behaviour to come more into line with their older classmates. It was concluded that this resistance to behaviour modification was as a result of widespread individual work in classes where there was the widest spread of ages, so that, despite tasks being levelled towards the average age, they were carried out individually (Hargreaves, 1990, p.84).

The PRISMS study provided evidence that the integrated day was adopted by teachers in small schools far less frequently than by their counterparts in the larger schools of the ORACLE project of the late 1970's. This suggested to the writers that by teaching one subject at a time, they

could differentiate tasks more effectively than by trying to manage a number of subjects simultaneously (Hargreaves, 1990, p.101-2).

Alexander, Rose and Woodhead (1992), acknowledged that the proportion of schools with mixed age classes had increased from 50 per cent to 70 per cent over the preceding decade, and for most of these schools this grouping had not arisen through choice but through necessity; in addition, "most teachers confess to finding teaching in such classes harder than in classes where pupils are relatively close in age and ability. HMI evidence suggests, too, that the considerable ability spread inevitable in the mixed age class leads to poor match of task to pupil in a third of the classes and a general failure to challenge the most able pupils" (Alexander, Rose and Woodhead, 1992, para. 82, p.26).

The work of Bennett *et al* (1984) suggested that matching tasks to pupil ability was a problem for all teachers, but that it may be exacerbated in vertically grouped classes. In considering match, their work saw error rate to be "an important, but not a sufficient basis to judge matching" (Bennett *et al*, 1984, p.42); therefore consideration was also given to the work product, the child's strategy and the post-task interview with the child. From this work, more than half of the observed tasks were mismatched and more particularly, high attainers were underestimated and low attainers were overestimated. It was seen that "mismatching appeared to have important immediate consequences in terms of lost opportunities and limiting experiences for high attainers and confusion for low attainers" (Bennett *et al*, 1984, p.65). Whilst the teachers acknowledged overestimations, they did not see underestimation.

In an investigation of task processes in both mixed and single aged classes, (Bennett *et al*, 1987) it was found that high achieving children were provided with virtually the same proportion of suitable tasks in both mixed and single aged classes (38% and 39% respectively), whilst low attainers were provided with a slightly higher proportion of matched tasks in mixed age classes (29% against 22%). It is clear from these figures that regardless of class composition, differentiation by ability was hard to achieve. Again, low attainers were given a high proportion of work which was

too difficult, whereas high attainers tended to be given work which was too easy and involved superficial exercises such as copying. "The underestimation of high attaining children is of concern since it leads to an over-emphasis on consolidation at the expense of development. Nevertheless, it could be argued that this is comparatively less serious than the overestimation of low attainers since tasks that are too difficult neither consolidate nor develop their competencies" (Bennett *et al*, 1987, p.46). In this study the sample was small, so the findings must be treated with caution, however, they "do not lend support to the findings of the HMI Primary Survey that matching is worse in mixed age classes" (Bennett *et al*, 1987, p.49).

LEA advisers in the study by Vulliamy and Webb (1995) appeared to hold very differing views on the ability of teachers in small schools to manage differentiation, particularly at Key Stage 2. In some respects following the introduction of the National Curriculum, teachers in small schools were seen to be more able to differentiate than those in larger schools: an ability to differentiate in all subjects, it was argued, had always been necessary in small schools, whereas in larger schools, teachers had tended to adopt a class focus in history, geography and areas of science. On the other hand, following an inspection of small schools, advisers in one LEA stated "Key Stage 2 is presenting particular difficulties for them in terms of ability to facilitate work at different levels if you have the whole of Key Stage 2 in one class - a nightmare" (Vulliamy and Webb, 1995, p.32).

School Performance: Evidence from OFSTED

The OFSTED database, containing data on inspections of every primary school in the four years from 1994 in England and Wales, is a further source of information on small schools. However, evidence has been slow to emerge. Pre-April 1996 data indicated that small schools were outperforming their larger counterparts in almost every category of inspection at both Key Stages 1 and 2 (Lloyd, 1996), the exception being provision for the under-five age group where in some cases there were significant weaknesses. In other respects "only very large primary schools "could hold a candle to the small schools' results"" (NSSF, 1996). These favourable findings supported evidence presented earlier by Richards regarding 1628 primary schools of which 224 were of 100 pupils or fewer (Brogden, 1997, p.14). This was reinforced in 1997 when it was indicated that small schools

were receiving more favourable inspection grades (Horne, 1997) when “small schools represented the highest proportion of those listed as good in Chris Woodhead’s annual report” (Brogden, 1997, p.14) and there was “a lower percentage of small schools in the failing category” (Brogden, 1997, p.15).

A detailed examination of two samples of data gained from OFSTED inspections of primary schools was undertaken by Richards (1998). This took those schools with fewer than 101 pupils on roll to be ‘small’ and compared them to those with more than 100 pupils on roll. He used 1994 - 1995 data comprising 1404 larger schools and 244 small schools and concerning an analysis of lesson observation grades and 1995 - 1996 comprising more than 1250 larger schools and over 300 small schools and concerning an analysis of the judgement recording grades. In the second sample, small schools were further divided into those with fewer than 51 on roll and those with between 51 and 100 pupils on roll and compared to the sample as a whole. Richards argued that the statistical significance and socio-economic locations of these schools needed to be made available in order to assess the importance of these findings, and he further questioned the reliability and validity of inspectors’ judgements (Richards, 1998, p.11).

In the 1995 - 1996 sample, the standards in relation to pupils’ abilities and quality of teaching were judged to be satisfactory or better in a higher proportion of lessons in small schools than in larger schools (84 per cent against 81 per cent respectively). The quality of learning was judged satisfactory or better in 89 per cent of lessons in small schools against 85 per cent of lessons in larger schools. In general “there were many specific comparisons, most marginally favouring the small schools” (Richards, 1998, p.11).

Analysis of the 1995 - 1996 sample yielded further favourable findings concerning small schools. At Key Stage 1, standards of achievement by pupils were judged favourably, those receiving 1 to 4 on the seven point scale, in 94 per cent of schools with fewer than 51 on roll, 93 per cent of schools with between 51 and 100 on roll and only 88 per cent of schools across the whole sample. Similarly, at Key Stage 2, these scores were gained by 95 per cent of schools with fewer than 51 on

roll, 90 of schools with between 51 and 100 on roll and only 81 per cent of all primary schools in the sample. When only those schools attaining 'good' standards of achievement, that is, receiving 1 to 3 on the seven point scale were considered, small schools again outperformed their larger counterparts at both Key Stages. At Key Stage 1, standards of achievement were judged good in 57 per cent of schools with fewer than 51 and with between 51 and 100 pupils on roll, compared to 49 per cent of all primary schools in the sample. At Key Stage 2, these standards were reached in 54 per cent of schools with fewer than 51 on roll, 52 per cent with between 51 and 100 on roll and 43 per cent of all schools. In terms of giving value for money, a category which might be considered to be a weakness in small schools due to the higher unit costs, the two categories of small school fell behind the average of all primary schools in the sample by only one per cent: 88 per cent of small schools giving at least sound value for money, against 89 per cent of all primary schools. (Richards, 1998, p.11).

In 1999, the first comparative report using both "reports and other data from the first four years of inspection between 1994 and 1998, together with data from National Curriculum tests over the same period" (OFSTED, 1999, p.1) was produced. This report gave a broad overview of the performance of small schools, as judged by inspectors.

OFSTED reported small schools to be "strongly represented in the top 100 performing schools, based on the DFEE's analysis of the Key Stage 2 results for English, mathematics and science between 1996 and 1998" (OFSTED, 1999, p.2). Further, these findings were stated to be statistically significant and it was suggested that those schools omitted from the analysis, as their Year 6 cohorts were too small to be reported upon, were also performing very well. An analysis by size of successful schools listed in HMCI's Annual Report also showed there to be a larger than expected representation of small schools. In contrast, both analysis of test results and of schools reported to be failing or in special measures, showed there to be a far higher proportion of very small schools represented (OFSTED, 1999, p.2). OFSTED claimed that this inconsistency in performance was because small schools were "more vulnerable to the adverse influences of weak teaching and/or weak leadership" (OFSTED, 1999, p.5). The proportions of pupils reaching levels 2 and 4 at the end

of Key Stages 1 and 2 respectively, were significantly higher in small schools than all others. The best Year 6 results were gained by pupils in “rural, church primary schools with between 51 and 100 pupils on roll in relatively advantaged areas, typically within commuting distance of towns and cities” (OFSTED, 1999, p.1). These findings cannot be taken at face value as when socio-economic conditions, measured by the proportion of pupils eligible for free school meals, were taken into account, the “results show small and very small schools to be performing less well than at first appears” (OFSTED, 1999, p.1).

Judgement Recording Statements for pupil progress between 1996 and 1998 were also analysed (OFSTED, 1999), with the finding that pupils in very small schools were more likely to make only satisfactory progress, and less likely to be making either less than or more than satisfactory progress. Figures cited for 1997/8 indicated pupils made good or very good progress in 26% very small schools and 30% small schools set against 32% of all primary schools. It is unclear whether figures for small schools included very small schools, in which case, the disparity between small schools and all schools would be reduced still further, thus reinforcing the disparity between those schools with fewer than fifty one on roll and all others.

In terms of the quality of education provided, OFSTED concluded that pupils in small schools were not disadvantaged by school size alone. Again, whilst small schools were judged “equally capable of providing an effective education and many are among the most effective in the country” (OFSTED, 1999, p.2), a higher than expected proportion of very small schools had “serious weaknesses” (OFSTED, 1999, p.2). With the reported extremes in pupil progress and quality of education provided, it is perhaps surprising that the quality of teaching in small and very small schools was better than in larger schools and there was a higher proportion of good teachers. This was true for teachers of all ages except the under-fives, an area in which OFSTED judged small and very small schools to be failing in comparison to larger schools: in this respect, catering for mixed ages was seen to be problematic. Pupils both following the National Curriculum Programmes of Study and working towards the Desirable Learning Outcomes in the same class were seen to

present difficulties for teachers working without the support of qualified nursery nurses. (OFSTED, 1999, p.3).

Two issues arise: the effects of social background and the reliability and validity of inspectors' judgements. On the first, there is evidence that social factors may be contributing to high scores. The report produced by OFSTED (OFSTED, 1999) confirmed the claim made by Richards (1998, p.11) that the social background of pupils in small rural schools should be taken into account. The apparently more favourable results in terms of pupils performance in small schools disappeared when socio-economic factors were included in the equation. Secondly, although the inspectors' judgements have been questioned (Richards, 1998) inter-observer reliability was high in the experiment conducted by Matthews *et al* (1998), finding "that OFSTED's Framework and related advice provide an effective means by which such inspectors (those with confidence and experience) can judge teaching with considerable reliability" (Matthews *et al*, 1998, p.186).

Data Received from OFSTED

OFSTED provided me with some of the data from inspections carried out between 1994 and 1996. A summary of composite grades by size of school for inspections carried out in the year 1994/1995 are presented in Table O1 where the lower the score, the higher the inspection grade awarded, is represented. These had been calculated by OFSTED by averaging the grades given for selected Judgement Recording Statements. They showed that those schools with fewer than 100 pupils on roll appeared to be outperforming their larger counterparts in every respect apart from efficiency. As with all data to be presented by OFSTED regarding school size to date, no indication of any statistical significance is given, but the ethos in small schools was judged to be particularly high. Appendix A presents my analysis of further data from the first two years of the inspection cycle (1994 - 1996) received from OFSTED which, whilst limited in some respects, reinforces the notion that small schools were given favourable grades.

Table O1:1994 / 1995 Distribution of Composite Grades by Size of School

(OFSTED Research and Analysis, 21/01/97)

No. on Roll	No. of Schools	Standards	Efficiency	Ethos	Quality of Education	Overall
0 - 99	160	3.19	3.18	2.34	3.32	2.95
100 - 399	686	3.35	3.38	2.69	3.47	3.17
400 & above	85	3.24	3.10	2.52	3.40	3.06

The Work of the Teacher in the Small School

Galton and Patrick (1990) assessed that in terms of age, sex and length of service in teaching, the PRISMS teachers were similar to the primary teaching population nationally. The notable difference was that whilst the PRISMS teachers had, in general, taught in a variety of schools of varying sizes, those teachers from larger schools in the survey were unlikely to have taught in small schools. A greater proportion of the PRISMS teachers had experience of teaching both infants and juniors and this "brief comparison of the qualifications and experience of PRISMS and non-PRISMS teachers suggests that the two groups had remarkably similar backgrounds, with the PRISMS teachers having the edge in some areas of experience" (Galton and Patrick, 1990, p.28). The teachers in small schools had also taken up their posts for reasons similar to those teachers in larger schools. The teachers in the PRISMS project also appeared to have similar opportunity for professional development in terms of INSET and observing colleagues working.

Data gathered suggested that teachers in the PRISMS schools differed from their colleagues as they had a greater range and heavier load of non-teaching duties (playground duty, bus duty, etc.) and subject responsibilities. As a reflection of the reduced caretaking and secretarial help which could be afforded, their teaching was more frequently disrupted yet this heavier load of duties was not compensated for through either increased non-contact time, pay rewards or promotion. Despite this, the degree of job satisfaction felt by the teachers in small schools was high and seen to be a result of the "family atmosphere" (Galton and Patrick, 1990, p.33). The satisfaction derived from working in a small school has been claimed to have a positive influence upon their willingness to complete extra tasks, working "beyond the bond" (Tomlinson, 1990, p.31), a state which Campbell and Neill termed "small school syndrome" (Campbell and Neill, 1994, p.115).

Whilst there had been a increase in class teachers' hours since the 1994 survey (School Teachers' Review Body, 1996, p.7), the School Teachers' Review Body found that primary teachers recorded just over a fifty hour working week (1996, Table A10), and that the relative size of the school did not "directly influence the length of the working week for classroom teachers" (School

Teachers Review Body, 1996, p.5), yet those teachers with a class of thirty five or more pupils were found to work more than two hours longer than their colleagues with smaller classes.

The Teaching Head

As early as 1967, with the publication of the Gittins Report it was acknowledged that "If the headteacher is free from class duties he can more effectively plan and guide the work of the school. One of the greatest problems is that of the teaching head who has to carry a double load" (CACE [Wales], 1967, para. 4.7.1). By virtue of their small size and limited staffing, it is characteristic to find that the heads of most small primaries still also have a teaching role. The literature concerning head teachers of small schools spans three decades; very little of it stems from research, but instead can be regarded as informed comment, usually from the head teachers of such schools (Davies, 1975; Gregory, 1975; Scott, 1982). Over time, the perceived virtues of such a position have seemingly been eroded and there has been a shift with increasing emphasis being put on the difficulties of balancing the managerial with the teaching elements of the job.

Traditionally, the work of the head in such schools has been seen to be unproblematic (Dunning, 1993), and viewed as being that of a class teacher in charge of a few colleagues and small number of pupils. Such an ideal, whilst possibly being relevant to one or two teacher schools in the remotest parts of the country to as late as the 1980's must now be seen to be a simplification as it fails to take into account "the extent and complexity of the accumulation of developments affecting both the teaching and headship elements of the dual role" (Dunning, 1993, p.81), especially those developments following the 1988 Education Reform Act. The problems specifically associated with the role of teaching head can be divided into three main areas: difficulty in managing the workload associated with both the administrative and teaching elements of the job, the quality of education which a teacher can provide for pupils given the fact that administrative work and teaching do not fall into discrete time blocks and finally the pressure upon the headteacher to maintain his/her traditional position as curriculum leader and innovator.

“The Education Reform Act has radically altered the statutory and professional context within which heads operate and changed their relationships with LEAs, governors, parents, staff and children. It is therefore not surprising that even before the Act became law, particularly teaching heads in small schools, were reporting a high incidence of stress” (Boydell, 1990). Those heads of small schools in the PRISMS study tended to be younger than those of larger schools, reflecting possibly the fact that LEAs regard the headship of a small school as a stepping stone to the headship of a larger school. For many of those interviewed as part of the PRISMS study, it was their first headship (Galton and Patrick, 1990). Fifty six per cent of the headteachers interviewed by Boydell were also in their first post as headteacher (Boydell, 1990, p.20).

In the journal 'Report' (1993) reference was made to the admission by the then Parliamentary Under-Secretary of State for Education that "small schools can face particular challenges in taking on full responsibility for their budget; particularly where head teachers have to combine the role of financial manager with that of classroom teacher" (Anon, Report, 1993, p.5) and research findings would seem to confirm this. The Shropshire Small Schools Survey revealed that the time spent on administration varied considerably, yet '16 small schools reported an average of 1.02 hours spent by the headteacher on LM each week" (Shropshire Education Service, 1995, para. 2.5) and during the conversations with eighteen headteachers in 1989, LMS was “the most mentioned single concern” (Boydell, 1990, p.21).

Most of the headteachers responding to a questionnaire “perceived themselves to have excess workloads that were beginning to have an adverse effect on some of them in both their personal and professional lives” (Last and Murphy, 1998, p.14). Seven factors were viewed to be of most influence; namely, excessive paperwork, balancing teaching and administration, facilitating introduction of new curricula, lack of direction, integrating children with special needs, meeting the demands of OFSTED and dealing with well-informed parents. The increased power of governors, not always trained or well-informed, was also seen as a hindrance to the easy running of schools as well as “the spill over of social problems into schools” (Last and Murphy, 1998, p.15) and a decline in staff morale.

Problems for the children in the class of a teaching head with the dual role were noted both by the NAHT (1975, pp. 1-2), who posed the rhetorical question "Can the child be receiving "equal opportunity" when his teacher who happens to be the head is continually interrupted by telephone calls, or when parents are interviewed in his classroom?", by Scott (1982, p.45) who brought attention to the interruptions which headteachers experience when teaching in small schools by commenting that "children need continuity and security and serious disruption can affect both" and the Shropshire Education Service (1995, para 1.8) which saw the disruption to the teaching head's class to be an especially difficult problem to manage. The small-scale study by Aldridge (1990) which examined the link between levels of interruption and pupil distraction found that "Heads' classes had, on average, levels of distraction twice those of their colleagues' classes, a finding which was statistically significant" (Aldridge, 1990, p.134). Webb and Vulliamy found that the headteachers of small schools who were interviewed gave their class responsibilities priority over all other aspects of their job, but "they admitted to ever increasing difficulties as a result of their widening responsibilities in trying to ensure that their class teaching was not interrupted" (Webb and Vulliamy, 1996, p.135).

Howells saw the head as being the one person needed to be "free of a full-time commitment to a class so that he can teach in all classes and give support and advice to the rest of the school" (Howells, 1982, p.6). Whether this ideal is one which Howells realistically expected or believed to be achieved in all schools, or merely small schools is not made clear, but he went on to assert that the head is "the one person on the staff who needs and must have an overview of the school" (Howells, 1982, p.6). Later however, Waugh contended that "the increased workload of the head teacher which has followed the introduction of the Education Reform Act (1988) may reduce the efficacy of the head teacher's role as a curriculum innovator in small schools" (Waugh, 1991a, p.62). Howells (1982) argued that a minimum allocation of fifteen hours secretarial help was required each week in order to make the head's job possible, some seven years before the introduction of LMS. The findings of Budge (1994, cited in Arnold, 1994, p.391) concerned teaching headteachers in North Devon who were estimated to work an average of seventeen hours unpaid overtime each week.

Arnold argued that increased administrative demands and greater teaching loads due to budget constraints had led to work overload, relieved by delegation, yet in small schools the absence of both a deputy head and full-time secretarial help limited the scope for delegation (Arnold, 1994, p.391).

The work done by Waugh in 1990, a year after the introduction of the National Curriculum, (Waugh, 1991a, p.4) in part looked at the teaching load of headteachers in three categories of school. In a questionnaire responded to by 153 schools, it was revealed that the head teachers of larger schools, with 200 pupils or more, were significantly more likely to delegate responsibility for organisation of the curriculum to members of staff (Waugh, 1991a, p.62). He further suggested that the lack of posts of responsibility which acted as financial incentives to teachers may influence this. Heads in those schools with between 101 and 200 pupils on roll taught for an average of 0.47 of the week, whilst heads in larger schools taught for 0.18 of the week; these figures contrasted with the average 0.83 teaching load of heads in the fifty schools with less than 100 pupils. Waugh noted that the high teaching load of heads in small schools may not leave them sufficient time to gain an adequate overview of the whole curriculum and the small amount of non-contact time remaining in the week would be filled with administrative work rather than curricular work. It was also acknowledged that the personal delivery of the curriculum by the head may mean that in his/her own class, "curriculum change . . . is easier to negotiate" (Waugh, 1991, p.4).

OFSTED concluded that the headteacher had a pivotal role in providing educational direction for their schools. Overall, weak leadership was seen as a problem in about a seventh of small schools: the same proportion as for schools of all sizes (OFSTED, 1999, p.4). The dual teaching and management roles being "uniquely combined" made the head's influence "a more than usually important factor in determining the quality of the school" (OFSTED, 1999, p.4). This supported the argument made by Alexander that "the head remains pivotal to the successful management of a primary school" (Alexander, 1992, p.112). In Alexander's examination of management styles and structures, the concept of "my school, my class" was more common in small schools where there was a "classic division of labour between a head and class teachers, each with clearly defined roles and 'zones of influence'" (Alexander, 1992, p.108). Alexander maintained that

in small schools there was “limited scope for extended curriculum leadership roles, let alone year group responsibilities” (Alexander, 1992, p.109). A further problem in small schools is the implementation of curriculum change by teachers in the classes of the teaching head (Galton, 1993, p.31). Whilst the teaching head may be powerful in leading by example, Galton found that teachers were reluctant to give the headteachers advice when working alongside them.

Research was undertaken between 1996 and 1998, by means of a national survey of Scottish schools with fewer than 121 pupils on roll, as well as by interviews and questionnaires completed by headteachers, which explored the management activities and strategies which they adopted (Wilson and McPake, 1998). It was found that the headteachers used formal and informal consultation rather than delegation as a main strategy of management. The headteachers were also “anxious not to overload staff, particularly when aspects of several new initiatives appear to need to be implemented simultaneously” (Wilson and McPake, 1998, p.40). The wide variety of tasks which the headteachers had to undertake meant that they needed to be proficient at prioritising and managing their time. In trying to identify a management style of small school headteachers, Wilson and McPake argued that the headteachers did not use their “positional power to make decisions, delegate tasks and monitor performance” (Wilson and McPake, 1998, p.43), but instead led from within the ‘team’. The nurturing of relationships was seen to be of key importance: developing a team and ensuring that the close relationships of the staff were also good relationships. It was concluded that the headteachers had developed a “situational management approach based upon pragmatism, prioritising, leading from within the team, being professionally outward looking but environmentally cautious” (Wilson and McPake, 1998, p.47). For these headteachers support came primarily from informal discussion with other headteachers.

The Intensification Thesis

The dynamics of class and gender and to a lesser extent of race have been considered as processes which have shaped the work of teachers. Apple argued that the autonomy which teachers (women) have achieved is being removed "as there is the reassertion of academic dominance of the

curriculum" (Apple, 1986, p.35). In order to realise a more efficient education system, Apple suggested that over time, new techniques of controlling teachers, largely through legislation, had replaced the more traditional styles of domination which had failed . "It is the history of the state, in concert with capital and a largely male academic body of consultants and developers, intervening at the level of practice into the work of a largely female workforce" (Apple, 1986, pp. 36-37).

However, the intervention of the state in trying to bring about curricular reform, Apple argued, was unsuccessful due to resistance by teachers. The resistance occurred behind the closed door of the classroom where teachers exerted their autonomy. The publication of materials in the U.S. for the improvement of science and mathematics, intended as teacher-proof, were, once inside their own classroom, used by teachers in the same way as existing materials.

As the processes in early curriculum reform were unsuccessful, Apple argued that a new set of techniques for controlling teachers was introduced which included integration of testing, and the introduction of pre-packaged curricula. This process has involved the de-skilling , seen in some cases to be re-skilling of teachers and a separation of conception from execution of teachers work. This was coupled with a process of intensification which "represents one of the most tangible ways in which the work privileges of educational workers are eroded" (Apple, 1986, p.41) and which was by no means restricted to education. The symptoms of this process ranged from the trivial to the complex: having no time for relaxation breaks to no time to keep up with one's field had generally led to chronic work overload. In addition, workers were seen to be put at greater risk of isolation in their work. A contradiction of both having to learn a broader range of skills (re-skilling), whilst at the same time in effect being intellectually de-skilled in one's own field, leading to a greater reliance on that which is provided by 'experts' (de-skilling), emerged.

The issue of gender is important here as Apple argued that there had been some resistance by the teaching profession to the movement towards administration, accountability and management and away from the pastoral elements of education, which he saw to contrast with the stereotypical passivity of the female work force.

Policy developments in England and Wales over recent years have had far reaching consequences for the teaching work force. A common theme which can be traced through government policy documents and debate in England and Wales from the late 1960s onwards has been the increasing control of teachers exerted by central government and the consequent decline in individual autonomy, linked with increased public accountability . Ozga (1989) argued that the position of teachers has been politically, socially and economically weakened. It has been suggested that by the gradual attrition of individual autonomy, teachers have been and are being reduced to the level of operatives, "subjected to a process of supervision which not only inhibits their creativity, but actually removes control of their work from them, and reduces them to carrying out pre-ordained tasks" (Ozga, 1989, p.25): the process of proletarianization. It has been argued that evidence for this process lies in initiatives such as the development of a contract which details teachers responsibilities and makes them accountable for their actions during their 'directed time' and the enforcement of a nationally prescribed curriculum. This in turn, Ozga asserted, led to teachers displaying symptoms of intensification, in differing degrees of severity. At the least significant level, these include the work demands of the individual being extended through necessity, into designated relaxation periods, representing an intensification of teachers work in that they are required to accomplish more in the same overall time.

Recent work by Ozga (1995) was an appraisal of the extent of teacher deprofessionalisation in the 1990s. In this paper, she argued that the marketisation in education has been most visible in the 1988 Education Reform Act and the 1993 Act 'Choice and Diversity'. Most significantly, Ozga asserted, came the publication of test results as league tables, formula funding, local management of schools and Grant Maintained Schools in 1988, whilst the 1993 Act extended choice and diversity through the financial encouragement of specialist schools and acceleration of opt out. Occupational restructuring was seen to have occurred with the introduction of pay and conditions, the introduction of a contractual duty in terms of hours and the abolition of negotiating rights. In addition, Ozga argued that there had been a "shift in the locus of control - from a directive state, manipulating professional rhetoric in a relatively undifferentiated work force, to the head-as-manager, working

within a framework of regulations, and using management of the culture to internalise controls and ensure compliance" (Ozga, 1995, p. 34).

A Critique of the Thesis

The thesis put forward by Apple is working at a high level of abstraction. Empirically, however, three problems exist with his portrayal of teachers work, as noted by Campbell and Neill (1984). The first is that the thesis operates within an historical vacuum which fails to include the work of teachers in the late nineteenth and early twentieth century: a period which for teachers, in the U.S. as well as England and Wales at least, involved long hours, payment by results, large classes and the delivery of the curriculum in a didactic way, thus requiring no 'professional' skills. It would seem from this that teachers are experiencing a 'reintensification' of their work, following a period in the middle of this century when, in line with their increasing 'professionalism' in the eyes of the public, and coupled with a period of post-war economic rebuilding and prosperity, their work was 'relaxed'. Within the Apple thesis there is no historical baseline and no acknowledgement that the process of intensification may be cyclical, and this poses problems for testing the thesis empirically.

The second problem concerns "the conflation of the concept of intensification with that of de-skilling" (Campbell and Neill, 1994, p.207), implying that they cannot be mutually exclusive. This is in contradiction to the findings of the study by Campbell *et al* (1991) which reported that teachers felt that their work had intensified whilst at the same time their professional skills had developed. Thirdly, the process of intensification can be seen to have occurred not only in societies which operate a capitalist economy. Campbell and Neill cited China under communism and socialist Sweden as examples which demonstrate that intensification is not exclusively associated with capitalist economies (Campbell and Neill, 1994, p.208).

The theses as they relate to teachers in small schools

In the primary school system of England and Wales, intensification might be hypothesised to be most clearly observed in the smallest schools. Here, the effects of the imposed changes to teachers

work which have taken place, particularly since 1988, will be shared by fewer staff. It may be that in a small school, the imposition of the National Curriculum will, in the short to medium term, have led to greater work overload as two or three teachers will have shared the process of producing policy and curriculum documents: a process which was required by law for each of the nine (ten) National Curriculum subjects and which cannot be seen to be any less of a task because there are fewer pupils on roll. To date no such research has been undertaken with respect to small primary schools in particular, however, the existing studies of teachers' work may be considered to provide a useful benchmark against which to draw comparisons (Campbell and Neill, 1990, 1994,).

The introduction of national standardised testing at the end of each Key Stage through teacher assessment was generally recognised to have increased the workload of teachers, especially those assigned to classes at the end of Key Stage 1, that is Year 2 children. According to the study by Campbell and Neill, "Approximately 9 per cent of teacher time was taken up with teacher assessment, and teachers of Year 2 children, who were implementing national curriculum assessment, spent 8.9 hours per week marking pupils' work and recording results, some 5.4 hours of which were spent off school premises" (Campbell and Neill, 1990, p.82). This would certainly suggest a move towards the work overload of Apple's intensification thesis. No empirical evidence exists on this matter with respect to small schools in particular.

The appointment of 'subject managers' is problematic in a school which has only a restricted number of staff. In any school the appointment of suitable co-ordinators may be difficult due to a lack of expertise, typically in science and technology. However, in a small school the staff will either have to collectively take responsibility for each subject, or each staff member will have to take responsibility for several subjects. Whichever option is followed, ultimately again, it must fall to one or more individuals to maintain an overview and records for each curriculum area. For larger schools, it is possible that the headteacher, freed of any teaching responsibility, would take on the responsibility to write and maintain such documents. In the small school where the headteacher has a dual role, this becomes less of a possibility during the school day and so would encroach into the private time of the headteacher. Whichever staff members take on the job of curriculum

co-ordination, the lower numbers of pupils in the small school cannot significantly reduce the workload as the same number of documents are still required. It could therefore be argued that in this sense teachers in small schools have been subject to the greatest amount of intensification. The teachers in the pilot study by Campbell and Neill all held co-ordination responsibilities; this was interpreted "to mean that small schools cannot afford to have teachers without responsibilities, since to do so would adversely affect their ability to deliver the curriculum, a problem perceived as especially great for small schools" (Campbell and Neill, 1990, p.11). In addition to this, they found that for teachers holding co-ordination responsibilities, lack of time was seen to be a greater problem in implementing the curriculum. Whilst figures were presented for the number of co-ordination posts held by individuals in the sample : as many as 4 in the case of two teachers, this was not considered in respect to the size of school. No analysis was carried out to discover whether time became perceived as a greater problem if the individual held more than one post of responsibility, as was likely to be the case in small schools with limited staff.

Theses stressing the proletarianization of teachers' work (Ozga and Lawn, 1981; Ozga, 1988) considers teachers to have become 'de-skilled' under a false consciousness whereby they believe themselves to have become 're-skilled'. Since the 1988 Education Reform Act, teachers in small schools will almost certainly have developed a greater repertoire of skills in terms of assessment and record-keeping as well as in the writing of curriculum and policy documents. These are the administrative procedures which Ozga and Lawn interpreted as reducing teachers to the level of technicians or operatives (Ozga and Lawn, 1981, p.52). Whether or not they can be defined as low-level skills or not, teachers in schools with only a few staff will possibly be more skilled in these techniques as in these schools the onus for implementing the National Curriculum will have fallen on fewer shoulders.

Inspection reports which have been examined show that over time, in the judgement of the inspectors, small schools have shown a steady improvement. Caul and Harbison refer to the report of schools in Norfolk in 1984, where it was considered that schools with less than 60 pupils on roll found it difficult to provide a satisfactory curriculum (Caul and Harbison, 1989, p.121) yet by 1987,

Bell and Sigsworth found it impossible to assess the size of school from the inspection report (Bell and Sigsworth, 1987, p.147) and the most recent evidence from OFSTED indicated that small schools were outperforming their larger counterparts (Richards, 1998) Contradictory and inconclusive findings from research into the curriculum of small schools combined with a possibly changing agenda of the inspectorate mean that it is only possible to speculate as to why this shift has occurred and to the link that this has with the process of proletarianization. Two strands of explanation need to be explored. Firstly, whilst very unlikely, it is possible that teachers in small schools have responded to the challenge of the 1988 Education Reform Act and have moved away from the reliance on self-paced, individualised schemes in the basics and textbook orientated coverage of science, the humanities and art that Galton and Patrick observed (Galton, 1990, p.48). Thus, despite limited Inset provision and non-contact time to act as advisors to colleagues, teachers in small schools have undergone a process of 'self-training' to successfully incorporate the formally neglected subjects of I.T. and technology into the curriculum. These are examples of two subjects which do not lend themselves easily to textbook or scheme teaching: if this has been the case then such teachers have flourished and developed their teaching skills further: certainly 're-skilling' to a far higher degree than their colleagues in larger schools, despite the greater pressures of work in mixed age classes noted by Campbell and Neill. If this has been the case then this further demonstrates the commitment of teachers in small schools and their willingness to go 'beyond the bond'.

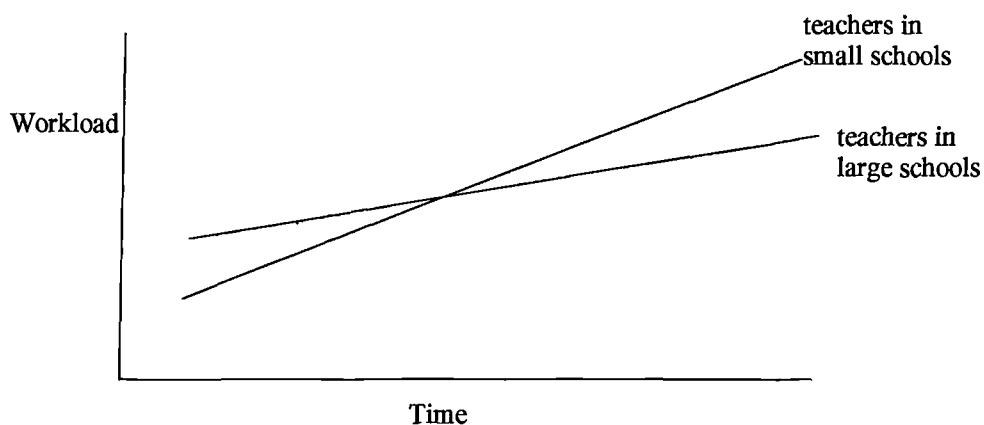
The second possibility is that prior to the introduction of the National Curriculum, the teachers in small schools were forced through the necessity of coping with mixed age classes, to deliver the curriculum by using schemes and textbooks. In this case, the provision of an adequate curriculum to pupils spanning two or more years may have never seemed a realistic proposition. When the National Curriculum was introduced in 1989, it would therefore have been the case that teachers in small schools were already competent in using published schemes and textbooks, consequently they were better adjusted to the new, broader statutory curriculum and therefore more practised than their colleagues in larger schools who had until that time employed different methods of teaching but who were forced to adjust to the National Curriculum by purchasing and studying

methodically schemes and textbooks. In this case therefore, teachers in larger schools may be considered to have become 'de-skilled' according to the definition by Ozga; those teachers in small schools however have experienced de-skilling to a lesser degree and may even be considered to have formerly lacked certain skills present in the repertoire of their colleagues.

Logically, the two factors of smaller class size and mixed age classes, which are typical of small schools, will have affected the amount of time that teachers in small schools became required to spend on assessment and record-keeping. Assessment and recording are tasks which can be considered to take discrete amounts of time for each pupil. Therefore, a class of twenty pupils as opposed to thirty pupils should generate a significantly smaller proportion of work, though not necessarily as little as two thirds. In addition, only a few pupils in a class will be at the end of a Key Stage, thus reducing the amount of teacher assessment necessary in any one year. Secondly, and in contrast, it would seem unlikely that the teaching of a mixed-age class would lend itself easily to 'whole class' record keeping systems. It would seem more likely that highly individualised records would be necessary, reflecting the more individualised means of teaching necessary both in terms of content and differentiation by age and ability. Such record keeping systems will therefore be more labour intensive and time consuming. Campbell and Neill (1990) examined the processes of preparation and planning and the organisation of resources and materials. These processes may be considered to be influenced by class size and composition in a similar way and so the findings may help to determine which of these factors was most influential to teacher time. They demonstrated that teachers with mixed age classes "spent significantly ($p < .01$) more time on Preparation overall . . . than other teachers, especially during the week" (Campbell and Neill, 1990, p.30). From this, it may be concluded that in small schools, smaller classes do not offset the degree to which work has to be tailored to the individual child.

From the intensification thesis, the following model of changes in workload over time can be generated. All teachers appear to have undergone intensification of their work over time (Woods and Wenham, 1995, p.133) yet no true baseline or measure of this process exist. Whilst the image of

teachers in small, rural primary schools in the post-war period may be over generalised and over-romanticised, it is the only available baseline. The descriptive accounts referred to earlier suggest that historically their workload may have been lower if not the same as the workload of their colleagues in larger, urban schools. The work of Campbell and Neill indicated that teachers in schools with mixed age classes seemed to be the "teachers under greatest pressure within the school day within Key Stage 1" (Campbell and Neill, 1990, p.31) and that of Galton and Patrick (1990) showed them to have a greater non-teaching load. This suggests that teachers in small schools have experienced the greatest intensification in their work. This model is presented in graphical form below.



Weaknesses in the debate on small primary schools

The debate concerning small schools has, to date, focused upon three factors which can be "loosely termed the 'three C's'" (Harrison and Busher, 1995, p.386), that is curriculum, culture and cost. The existing literature has often appeared biased in favour of small schools emphasising their role in village communities and the high quality of education provided, where pupils are nurtured as individuals in a way in which, writers have claimed, they would not be in larger, and consequently, more impersonal schools. Concerns have been expressed about the breadth of the curriculum in

small schools for more than thirty years, yet research and inspection evidence gathered both prior to and following the introduction of the National Curriculum, has suggested that there are at least no significant shortfalls in the breadth and quality of the curriculum provided by such schools (Comber *et al*, 1981; Bell and Sigsworth, 1987) and no great difference between the curriculum provided in small schools when set against their larger suburban counterparts (Galton and Patrick, 1987).

Despite this, many small schools have joined together in collaborative clusters. Clustering has been adopted as a strategy amongst many small schools as a way of broadening pupils peer groups, reducing teacher isolation and most importantly improving the range of teacher expertise available in order to deliver the National Curriculum. The schools included in the study by Hargreaves *et al* (1996), which had not united in any form of cluster "given this freedom to remain 'unclustered', believed that they could harness sufficient expertise from within the school or from the local community to cope with the demands of the National Curriculum" (Hargreaves *et al*, 1996, p.95). This reinforces the notion that at least part of the drive amongst small schools to cluster has arisen through a feeling of inability to deliver the National Curriculum adequately. Clustering therefore can be seen as an indicator of self-confessed deficiencies on the part of small schools in the quality of education which they are able to provide. If, as those who argue the case for small schools say, they are able to deliver the curriculum, then why cluster?

Small schools are seen as a special case in primary education. Arguments are made both for and against their continued existence; they are seen as having distinct qualities which set them apart from the rest of mainstream education as well as distinct disadvantages for the staff and pupils. Despite this, there is and has been no agreed definition of a small school in terms of size or determining characteristics; as has been demonstrated, estimates of the upper limit on roll in a small school can rise to 250 pupils and estimates of the age span in each class or teaching load of the head teacher have similarly varied and in some cases have not been considered at all. In reality, it could be argued that the small school is not a special case, it is part of a continuum. Whilst it is true that schools change in their nature as their size increases, there is no cut-off point beyond which schools alter dramatically in their characteristics. An alternative to defining them as 'different' is to research

them from the same perspectives as other primary schools, and especially to research their teachers in the same theoretical framework as others, as is proposed in this research.

There is a further aspect of the small school as a special case which has not as yet been widely considered in the debate. It is that the small school, being more costly than its larger counterparts might need to be justified by providing a service which reflects this greater expenditure, “do small or larger schools provide better educational outcomes for the money invested” (Harber, 1996, p.7). The supporters of the small school have argued that such schools can provide an education which equals that of larger primaries; evidence to support this has been at best inconclusive. The argument of cost ignores the fact however that small schools could be seen to be a burden to the education budget: 'wealth' is not shared equally between schools and the delivery of, at best, an equal education at greater cost cannot be seen to be valid in a market economy. Small schools are also part of a continuum on a cost basis and it could be argued that the quality of educational provision should rise in line with their cost.

Implications for this Study

Methodological Issues

To date, research into the curriculum in small schools has been limited in three respects. Firstly, classroom based observation has been the least frequently adopted means of data collection; secondly, where classroom observation has been employed, the length of observation has been limited and thirdly, it is often the headteacher who is used as the respondent when interview techniques and questionnaires are employed.

The result of this has been to generate research data which are too heavily reliant on the anecdotal evidence provided by staff, creating data which are open to criticism in three respects. Firstly, evidence gathered in this way, without triangulation, can hold no guarantee of being free from subjectivity. Secondly, interviews of teachers, whilst producing often rich sources of information, take place in a formal situation; the respondent is not anonymous to the researcher.

Often, interviews take place on school premises and so whilst the conversation itself may be private and confidential, knowledge that the interview is taking place is public. The result of this is to put the respondent in a position where they may feel the need to be defensive or guarded about their practices: there is pressure that the respondent should give the 'desired' answers as opposed to those which they believe to be accurate. To guard against this, Campbell and Neill (1994) interviewed the teachers in their homes or hotels, away from their schools. Thirdly, there is the issue of the 'perception gap' which exists between the reality of the classroom and the individual's view of that reality. One must also question whether this gap is magnified when the issue under discussion is so emotive, as in the case of the adequacy of curriculum provision in small schools.

It has been common in the case of small schools, that interviews have been conducted with the head teachers of schools, who are taken as answering for the entire staff (Howells, 1982; Cornall, 1986) and similarly, head teachers have been the targeted respondents to questionnaire surveys (Caul and Harbison, 1989). It may typically be the case that the head teacher is the one staff member of a staff who has time to visit classrooms during the school day, if only through the course of duties such as giving prospective parents tours of the school. In a small school though, the situation is somewhat different: the head teacher of a small school will in all likelihood have a class teaching commitment as well as having to take responsibility for secretarial duties and so on. Naturally, this will mean that a sample of head teachers from small schools will have current first hand teaching experience and insight, but they may lack the day to day opportunities to establish the general overview that head teachers from larger schools have. A further issue concerning interviews with head teachers is that they may identify with their school and therefore be 'promotional' rather than objective when describing its features to an outsider. It should be questioned whether interviews conducted with head teachers of small schools can provide reliable evidence concerning the teaching practices and curriculum in classes through the school.

Whether teacher or head teacher, interviews and questionnaires are an unreliable means of data collection in isolation. Whilst teachers' opinions are important in the process of developing a picture of a small school, observations of a neutral bystander are necessary to bring impartiality to

the evidence. Such triangulation of data has only been achieved in the larger studies which exist (Comber *et al*, 1981; Galton and Patrick, 1990; Galton *et al*, 1991). Even in these cases where reported evidence has been supported with classroom observations, those observations have been limited in duration, with the exception of those made in the PRISMS project (Galton and Patrick, 1990).

Issues concerning the Interpretation of Evidence

Many of those who have written about small schools have done so as educationalists who have spent at least part of their career working in the small rural school (Gregory, 1975; Davies, 1975; Forward, 1988; Bell and Sigsworth, 1987). The commentaries which they have produced are distinct from the work done by researchers as they each reveal a bias on the part of their authors in favour of the small school, with little or no substantive evidence. These writers have been widely cited in the argument for the continued survival of the small village school. Despite revealing their feelings openly, assertions such as "Small village schools provide an excellent foundation for each child. They offer stimulating quality education in a caring environment" (Razzell, 1993, p.7) have been treated uncritically and even with respect in subsequent publications. Indeed, Bell and Sigsworth's book (1987), which appears in the bibliography of almost every other work on small schools, is prefaced with poetry and prose (Bell and Sigsworth, 1987, p. x - xi) where the authors try to convey the warmth of their feelings on the small school.

As Caul and Harbison noted, "the arguments provide an insight into what people value about the education which schools can offer although the assertions made by both sides are grounded in very little substantive evidence. Most of the argument contains rhetoric rather than information and reflects convenience as opposed to rationality", further, "research which exists tends to depend upon anecdotal evidence and emotional response in specific situations and locations" (Caul and Harbison, 1989, p.118). Earlier, Davies had asserted that "Many affectionate accounts have been written of village schools, but it is no part of the writer's task to be sentimental" (Davies, 1975, p.77). However, this last comment contradicted his previous statement "LEAs for counties like Norfolk and Devon with very large numbers of small schools might be forgiven for regarding these minor

institutions as more of an embarrassment than an asset. This is to overlook the possibilities of the small school" (Davies, 1975, p.76).

Research Questions

From the review of existing literature on the work of teachers in small schools, the following questions either remain unanswered or have been only partially answered through the collection of limited data. This study addresses the following questions as they relate to the Key Stage Two teachers in two small primary schools, providing a depth of detail not previously attained.

Is the work of the teachers in the present study different from those of teachers in larger schools?

- Do the case study teachers work longer than evidence has shown others to be working?
- Is the nature of their work different to that of other teachers?
- What strategies do the case study teachers use to effectively deliver the National Curriculum and differentiate for pupils in their mixed age classes?
- Do the teachers perceive their work to be different to other teachers?
- How do the headteachers with a class teaching commitment manage to balance both elements of their role: teaching and management?
- Does the management role of the headteachers differ from that of other headteachers?
- Have these teachers been subject to intensification of their work?

CHAPTER 3

METHODOLOGY

This study portrays the work of the seven class teachers, two of whom were also headteachers, of three Key Stage 2 classrooms in two small schools with mixed age classes, over the course of the 1996/97 academic year. It examines their patterns of work, teaching styles and means of classroom organisation, providing data about their work both at school and at home. Case studies of the teaching head provide some empirical evidence on the extent and implications of the 'double load' which the teaching head carries.

Rationale for the Methodology

A case study method was adopted as the objective of the research was to collect a range of rich data about the working lives of the teachers, unavailable from previous studies. The notion of case study involves a concentration on, and detailed examination of what Wellington described as a "unit" (Wellington, 1996, p.30), be it a classroom, a person, an organisation, community or set of specific events. Bell (1993) commented that such case study research is particularly suited to the individual researcher as it allows one aspect of a problem to be studied in some depth within a limited time scale. The strength of case study method is that it allows the researcher to concentrate on a specific situation, thus the researcher is able "to identify, or attempt to identify, the various interactive processes at work. These may remain hidden in a large scale survey but may be crucial to the success or failure of systems or organisations" (Bell, 1993, p.8). The case study provides an "attention to the subtlety and complexity of the case in its own right" (Cohen and Manion, 1989, p.150). The collection of qualitative data through case study has been criticised for ignoring the issue of generalizability as there seems to have been "a widely shared view that it is unimportant, unachievable or both" (Schofield, 1990, p.202). Within the positivist tradition, the replicability of results is emphasised and seen to be the key to measuring external validity. However, it has been argued that qualitative researchers needed to question the internal validity of their results but not

to expect others to replicate their findings "in the sense of coming up with precisely similar conceptualization" (Schofield, 1990, p.203).

Critics of case study methods question whether there is value in studying individual cases or events as generalization from findings is not usually possible: "investigations in which participant observation figures strongly seem to be more liable to the charge of having looked at a single locale and therefore of creating findings of unknown generality" (Bryman, 1992, p.88). Bryman argued that "the concern that findings may be untypical is understandable when a subject is keen to develop a modicum of empirical generalization and possibly to make a contribution to wider theoretical developments" (Bryman, 1992, p.88). In support of the case study however, Bassey (1981) argued that "an important criterion for judging the merit of a case study is the extent to which the details are sufficient and appropriate for a teacher working in a similar situation to relate his decision-making to that described in the case study" (Bassey, 1981, p.85); Bassey termed this quality 'reliability' and argued it to be more important than the generalizability of any case study research (Bassey, 1981, p.85).

A further limitation in the use of case studies is what Bell described as the "danger of distortion" (Bell, 1993, p.8) as most frequently it is the individual researcher alone who decides upon the information necessary for the final report. In contrast to this however, one of the possible advantages of case study cited by Cohen and Manion is that case studies may form an "archive of descriptive material sufficiently rich to admit subsequent reinterpretation" (Cohen and Manion, 1989, p.150).

In this study, the schools and classes selected for study may not have each been 'typical' of other schools of similar size or class structure, However, a range of three classes within two schools, at the upper and middle range in terms of small school size in Warwickshire was chosen to be examined. The work of two teaching heads, one full-time teacher and four part-time teachers was documented. Bryman (1992) saw this practice of using multiple case studies as a way of reducing

the number of idiosyncrasies held within the data and also as a way to make comparisons and contrasts between cases (Bryman, 1992, p.88).

The adoption of a case study approach using participant observation, whereby the researcher was close to the subjects in the study and therefore to the data, made the familiarity of the school setting an important consideration as this may have been seen to influence the choice of information included in the field notes. In educational research, Becker (1971) saw that the familiarity of the routines in schools made it difficult for the researcher to see beyond those processes with which everyone is familiar: "it is first and foremost a matter of it all being so familiar that it becomes impossible to single out events that occur in the classroom as things that have occurred, . . . it takes a tremendous effort of will and imagination to stop seeing only the things that are conventionally there to be seen (Becker, 1971, p.10). However, the analysis made by Burgess (1995) seems to reflect the role of the researcher more usefully, in that he argued that situations can comprise aspects which are both familiar and strange. Hockey argued that the insider researcher must "simply put, make the familiar strange; to maintain enough distance so as to ensure that the insider/outsider coin operates effectively" (Hockey, 1993, p.218). Whilst not having worked in a small school, but as a former primary teacher, the language and routines of the classrooms which were studied were very familiar to me and this had the overall advantage of allowing me to become very quickly absorbed into the life of the schools and to understand the situations which I witnessed. Rendering them 'strange' was more difficult, but as is argued below, I relied upon triangulation to control my interpretation of data.

In order to guard against the weaknesses of qualitative research, this study combined the methods of both quantitative and qualitative research; participant observation in case study schools generating rich field notes, supported by semi-structured interviews, triangulated using intensive bursts of systematic observation and a time diary completed by the teacher. Brannen (1992) considered that where quantitative methods were subsidiary to qualitative methods, they tended to fulfil three types of function. Firstly, they were seen to "provide quantified background data in which to contextualise small scale intensive studies" (Brannen, 1992, p.27). Secondly, it was argued that

quantitative methods could be used to test hypotheses derived from the qualitative work and thirdly, quantitative work was seen to possibly provide a basis for "the sampling of cases and comparison groups which form the intensive study" (Brannen, 1992, p.28).

This use of 'multiple research strategies' (Burgess, 1982) to tackle the research problem is to be employed both to enhance the claims of validity (Denzin, 1970) and to complement each other; different methods to investigate the same aspect of the research problem from a different perspective. Triangulation of data is of vital importance. As Anderson argued, "triangulation is used to interpret findings, test alternative ideas, identify negative cases and point the analysis towards a clear conclusion based on the evidence collected. Findings based on conclusions suggested by different data sources are stronger than those suggested by one alone" (Anderson, 1998, p.159). The use of only one data-gathering tool provides a picture of only one aspect of the social world: in the case of qualitative research, the data are influenced by the priorities and individual emphasis given to the work by the researcher, yet as Burgess argued, experimental, statistical and survey research cannot "fully encapsulate the subjective elements of social life" (Burgess, 1995, p.79). In this study, in order to understand the processes involved and the matches and mismatches between schools and teachers, there was a need for different types of data to be collected.

Data Collection: methods and instruments

Participant Observation

The principal means of data collection was through observation; in the main this was through participant observation, with the collection of field notes. Such participant observation is the means of data collection most closely associated with qualitative research, yet the role of the researcher can vary tremendously. Gans (1967, p.440 cited in Bryman, 1992, p.48) saw himself to have been cast in three roles as participant observer: those of total researcher, researcher participant and total participant. Bryman saw this to be a strength of the method as it encompassed so many means of data gathering and observation styles within it. Spradley (1980) divided the process of participation into five categories along a continuum: non-participation, passive participation,

moderate participation, active participation and complete participation (Spradley, 1980, p.58). In this study, I entered the classroom as an assistant to the teacher, as an overt observer. In this situation, the researcher, even one who remains passive, may cause a problem to emerge which is common to both quantitative and qualitative methods, that is one of 'reactivity' (Bryman, 1992, p.112): the effect which the researcher has on the situation or the subjects whom he is studying.

In the fieldwork conducted by Measor, pupils initially were wary of her presence and clearly this influenced their behaviour in class. However, a breakthrough occurred when they realised that she would not 'tell' on them at which point they became more free in their actions. When reporting on the Changing Schools Project, Measor and Woods concluded that this sort of incident revealed the problem of researcher reactivity in that "the fact that the researcher has an impact on the research set up is of course well known. We cannot prevent it happening, but need to take responsibility for monitoring it" (Measor and Woods, 1991, p.66). The problem of reactivity extends beyond pupils in schools. "There is little doubt that teachers who know their teaching is going to be recorded and analysed will be more nervous and self-conscious than usual" (Mercer, 1991, p.47). For this reason, access was an issue which needed to be carefully considered throughout the project, but most importantly in the early stages in each classroom; this issue involves "not only gaining physical access to the research setting, but also the issue of building trust and developing relationships there, which is so crucial in qualitative research" (Measor and Woods, 1991, p.64).

The nature of this study was such that much information was gained through informal conversations with the teachers and the headteachers. The length of time which I spent in each classroom was designed to allow sufficient time for the teachers to become relaxed both while they were teaching when I was present, as well as when they were talking to me. This allowed for such conversations to be open and honest, as a further problem which has been acknowledged in research is that teachers are initially promotional about their schools and their colleagues: King (1978) noted that "In the early stages of my observations in each school the teachers maintained what David Hargreaves (1967) has called 'the myth of equal competence' about themselves" (King, 1978, p.73): a form of loyalty to colleagues when talking to strangers. Certain comments made by Mr. Smith

during the first day of observations in the pilot project (see pages 81-84 for details) of this study were interpreted as examples of reactivity. For example, Mr. Smith made a point of telling the class that the afternoon's work was not typical of the usual type of work that the class did as it would be "rather boring". Firstly, they were made in an obvious way, as a signal to me, rather than the pupils. Secondly, such statements did not occur later in the pilot project when, it was assumed, Mr. Smith felt more comfortable with my presence.

It was seen as important that I acted as a willing assistant to the teacher at the beginning of each classroom study. This, it was felt would influence the issue of gaining access. During the pilot project, the class teacher initially expressed anxiety about having a 'researcher' in her class. She had not been aware of the study until I arrived on the first morning as the headteacher had omitted to tell her. She was initially concerned about the purpose of the observations. This concern was rapidly dispelled however, when she realised that I was not just going to sit and watch her all day, but instead was simultaneously busy either working with children or completing tasks such as mounting work for display; I also gained credibility when the teacher realised that I had formerly been a teacher in a neighbouring school. In the study itself, I ensured that all staff were aware of the research before it began. At each school, the headteacher consulted staff before agreeing to allow the researcher in the school and then formally introduced me to the staff before the study began.

When the researcher openly observes a situation, it seems reasonable to assume that full involvement in the situation is the best way to minimise the possibility of modifying behaviours by his presence: in effect the researcher becomes almost invisible, part of the scenery. In this study, a potential problem existed in this respect and was considered during the piloting of the study. The inclusion of an additional pair of hands in a classroom will, if that person is to act as a participant in the life of the classroom, inevitably change the nature of teaching going on in the class. For example, an adult who the children come to know will be seen as a source of information and help, even if not assigned to work with specific children: an adult even sitting and tidying bookshelves will usually be approached by children for correct spellings or assistance in answering questions. If, as in the case of this study, it is the work of the teacher that is the focus, then this is immediately

modified: fewer children waiting to see the teacher may mean that no change in strategy is implemented. A queue of pupils however, may lead to the class teacher altering the structure of the lesson in order to maintain on-task behaviour from the maximum possible number of pupils. The first R.E. lesson at Haybarn School which I observed, involved the teacher sitting with the class and watching a video through twice before beginning a discussion. Following lessons had a similar format yet the class teacher left the classroom to mark work for the duration of the video, instructing a Year Six child to rewind it and show it to the class again when it had finished. Similarly, the same teacher left the classroom and the school after the children had informed her that there was a dead sheep in the field, in order to go across the road and tell the landowner. It is questionable whether the same teacher would have left children unsupervised in this way in my absence.

With the smaller than average classes which typically exist in small schools it was feared that the effect of a participant observer would be greater than in larger classes. In the smallest of the three case study schools which were originally proposed, the class to be observed had, during the 1995/6 academic year only 10 children in the Key Stage 2 class: a participant observer acting as a classroom assistant withdrawing to a corner of the classroom and working with a 'small' group of five children will halve the number with whom the teacher is left with. In contrast, with a class of 35 children, the withdrawal of five children, so that they are no longer under the supervision of the teacher, would seem no less typical than the number remaining in the body of the class when there are a few absences through winter coughs and colds. During the research however, all classes were between thirty and thirty five pupils. The effect that I would have upon classroom life was still viewed as a potential problem, and for this reason my role in the classroom was negotiated with the class teacher before the study commenced. Based on the findings of the pilot project which are discussed later, it was necessary to set limits on the type of task which the teachers set me. My role in the class had to appear as one of a classroom assistant, but without altering the behaviours of the teacher markedly. On certain occasions I was given tasks which involved travelling in and out of the classroom. This prevented the effective taking of notes and none would therefore be taken on these days.

Field Notes from Participant Observation

At the start of each session in school, I noted the date, class, teacher and number of pupils present in the class. At the start of each lesson, I again noted the class and number of pupils in the lesson, as well as any alterations to the layout of the classroom or seating arrangement of the pupils, for example, when chairs were moved in order to view the television or when the pupils moved into groups: any changes during the lesson were also noted.

Notes made during the periods of participant observation contained the following information: the time at which the teacher changed activity or changed his/her audience when speaking; the details of the teacher's actions at that time and their location at the time of observation and the subjects which the class were engaged in at the time.

Time

Noting of the time at which each activity began, to the nearest whole minute. Some activities lasted for less than one minute, however the following activity was coded to begin a minute later, hence whilst frequency of minor activities is reported accurately, in coding of the data, the time which they occupied is over-represented. Greater accuracy could only have been attained if smaller units of half minutes or even seconds were recorded: an unrealistic aim for a single participant observer in a primary classroom. The majority of activities were sustained for longer than a minute.

Activity

This section of the recording sheet detailed the activity of the teacher, his/her location in the classroom (at the teacher's desk, at the blackboard or computer area, out of the classroom, at a child's desk, etc.) and if appropriate, the audience of his/her talk (a single child, a group, the whole class, an adult). The audience was named wherever possible, or if classroom events moved too quickly for all names in the case of a group, to be detailed, broad details of the group were detailed, for example, Year 3 girls or 'those who had completed all set tasks'.

Subjects

The final section detailed the subjects which the pupils in the class were engaged in. In some cases, the lesson content could only be described as 'cross-curricular', with activities overlapping traditional subject boundaries, most commonly in the form of project work or follow-up work from school visits. On other occasions, lessons could not easily be coded as any recognised form of subject, for instance when pupils sorted out books for Parent's Evening, or sorting through their work folders and filing marked work as it was returned to them. Often, as in any primary classroom, children were observed to be engaged in a variety of tasks with individuals or groups covering different areas of the curriculum. The curriculum areas being worked upon by the three largest groups in the class were detailed. On occasions when only one or two pupils were engaged on a certain task this curriculum area was not detailed, for example when a child was typing a story into the computer rather than writing it by hand.

Systematic Observation

Classroom observation may be criticised for being susceptible to observer bias (Burgess, 1995, p.143, Simpson and Tuson, 1995, p.28). In order to counteract this, validation of the notes from participant observations was incorporated into the study by using short periods of systematic observation in the core subjects of English and Mathematics following the last week of the four week period of observation. By using an observation schedule, data were gathered which could be compared with that gained through field notes: a means of triangulation.

Each teacher was observed using a systematic observation schedule itself developed from the teacher record used in the ORACLE project. The Teacher Observation Schedule from the Leicester University Transfer Project was adopted and used in a slightly modified form (see Appendix B). Modifications were only made to the first part of the schedule where class and lesson details were entered; coding methods and categories remained unaltered. It therefore used codes which generated comparable data. In order to ensure reliable application of the schedule I met firstly with researchers from Leicester University for a morning to confirm its suitability and to modify the layout, as well as to become familiar with the method of completing it. After using the schedule for a

period in Mike Harris's class, I returned to Leicester to discuss this 'test' data (which was not used in analysis) and to undergo further training with researchers from the Transfer Project, using a 30 minute videotape of a primary teacher teaching. Agreement of observation entries of over sixty per cent between all three of the researchers was obtained. This matched the level of agreement necessary before researchers began the Leicester University Transfer Project for which the schedule had been developed.

Systematic observation has been criticised for the following reasons. Firstly, and perhaps most importantly, the use of a systematic schedule restricts the observer to recording only a limited number of pre-defined categories, which are subsequently used as the basis for describing classroom practices. This in-built inflexibility, it is argued, therefore only allows for a partial view of classrooms to be recorded. Barrow argued that there was an "inappropriateness of systematic techniques to the subtleties of human interaction" (Barrow, 1984, p.213). This is further seen to present a biased view of classrooms as the inclusion or exclusion of categories is through the judgement of the researcher, who may bring his own agenda to the research design. The charge of bias being incorporated into the observation schedule during its design however is one which is no less relevant to the qualitative researcher who records events in the classroom which seem pertinent to himself. By planning what is to be observed beforehand, a degree of bias is removed from the study, as the researcher is able to balance the categories of the observation schedule deriving them from more than one source whereas the qualitative researcher selects events to record from all those going on around him. It needs to be remembered that systematic schedules have their own bias: as Croll (1986) argued that the limitation of the "inevitably partial nature of the descriptions offered by systematic observation is not just a limit of this technique, but is inherent in any description of the social world" (Croll, 1986, p.161). The partial nature of data collection needs to be seen as an intrinsic limitation.

A second restriction of systematic observation is that by its nature it tends to lead to the collection of data which are fragmentary and therefore lacking in meaning; this Croll described as "atomistic" data (Croll, 1986, p.162). His worries extended to the problem that statistical data could

not meaningfully reflect social reality for two reasons. Firstly, the use of a systematic schedule acts as a type of binary coding: all categories included in a schedule are discrete, yet Croll argued that behaviours or categories may blend together and so their coding was likely to be inaccurate. Secondly, Croll argued that a numerical account of life in classrooms did not reflect the relative importance of occurrences: a single event may outweigh another which occurs routinely many times in its importance and the systematic observer has no means of evaluating the significance of events as opposed to their frequency. In response to these two criticisms of this approach, if systematic observation occurs for a sufficiently long period of time, then the coded entries will build up into an account of events. Further, it is acknowledged that the systematic observer is restricted to recording events according to the schedule which he is using, in that he cannot deal with the unexpected, details of typical classroom life can be recorded. The use of a schedule also renders it impossible for the observer to become distracted from the focus of the study, thus the data collection process remains focused and relevant to the study. Such criticisms are of most significance when systematic observations are the sole means of data collected. In this study, reservations regarding this method of data collection are overcome by the use of other strategies. Triangulation by the use of interviews and sustained participant observation gave data which helped to determine the significance of events and the frequency of their occurrence.

Interview Data

Interviews were conducted with all of the participating teachers except for George Patterson and with Brenda Jackson, the headteacher of Pear Tree School. The purpose of the interviews was threefold. Firstly, data gathered during the interviews was a source that could be triangulated with that gathered both from classroom observations and the time diaries. Secondly, the interviews allowed the researcher to gain an insight into the meanings which the teachers attached to their work and thirdly, it gave the teachers an opportunity to raise other issues which they felt important. In order to assess the internal validity of the research, teachers were also asked about the influence which the researcher had upon their practices during the periods of observation. Interviews lasted between one and a half and two hours, with the joint interview of the two part-time teachers and that with the headteacher lasting the longest.

The interview was not the only source of data gathered verbally. Being present in each classroom for the equivalent of four weeks, much information was solicited from informal conversations: "the interview that is done while observation is going on, when quick questions are put to informants about what is happening" (Delamont, 1992, p.109) as well as that information which was overheard. In the case of overheard information, the ethical issue of how such data were to be treated had to be considered. In a small school, where there is little enough space for private conversations, it would be reasonable to assume that staff are more than aware of how easily conversations can be overheard, particularly when the staff room has a variety of uses, for example doubling as the headteacher's office, medical room, secretary's office and place for children who have misbehaved to go to whilst awaiting punishment. Delamont considered that "In general, if the participants know that I am a researcher, I assume anything said in my vicinity was either meant for me or is 'fair game'" (Delamont, 1992, p.111). Taken at face value, this does not take account of private conversations, where the researcher may be out of sight of the participants, and therefore unknown to them, but still within earshot. In this study there was little opportunity for private conversations to take place as the school buildings were so small. However, I made the decision before the study began, that only those exchanges knowingly made in the hearing of the observer would be recorded as it would be an unethical invasion of privacy and breach of trust to use data gathered in this way.

During the study, it was rare that I overheard sensitive information: the greatest potential for this was when shadowing the headteachers, who routinely had meetings to discuss information concerning, for example, pupils' home circumstances. Both headteachers allowed me to attend meetings which were not confidential and introduced me to the other participants before the meetings began, gaining their consent for me to attend. In cases where I was excluded, the headteachers gave me details of the nature and purpose of the meeting beforehand and, where they judged permissible, details of the meeting afterwards.

The teachers sometimes gave additional contextual information which assisted in my understanding. This was a natural development of working in the schools for extended periods and building relationships with the staff and proved useful in developing understanding. Information which was factual was taken into account. Certain staff, however, clearly had a personal agenda and used me as a sounding board, airing their problems and opinions about other staff and the workings of the school. Comments made in these instances were not responded to and are not generally commented upon in the study: they were often results of disagreements between staff and as such were merely passing conflicts. The exception to this is to note here that the headteacher of Haybarn School, had reservations about the competence of the Reception class teacher and there was a continual tension between these two staff: a point of relevance in the discussion regarding the headteacher's management style.

The classroom observations followed teachers through the whole school day, from 8.30 a.m. to 3.40 or 3.50 p.m. depending upon the school: this included a quarter of an hour both before and after the teachers were legally responsible for the children in their class as well as during playtimes, lunch time and periods of non-contact time. These data however did not account in any way for the time which teachers spent working both in school beyond these periods and out of school. The Record of Teacher Time provided some picture of the teachers' work beyond the school gates, but was a coded form of quantitative data which could not give the richness of information which an interview may, in terms of, for example, the time which the teacher has to take in preparing work for particular children or of the degree of willingness with which the teacher carries out this 'extra' work. Whilst informal conversations between myself and teachers on a day-to-day basis gave me some notion of the 'extra' work put in by the teachers, such data were not comprehensive. Therefore the interviews went some way towards addressing the limitations of the time diary.

From analysis of the observational data, certain teaching styles and means of organising classrooms were assigned to individual teachers. These styles broadly involved individuals preferring to organise lessons so that either whole class, group or individual teaching was dominant. The interviews revealed teachers' self-perceptions about, and reasons for, their choices in organising

their classes in the way in which they did. The interviews also discovered something about the meanings which the teachers attached to their work in a small school: their likes, difficulties and feelings regarding such issues as standards and the degree to which they were successful in delivering the National Curriculum. Conversations which occurred on a casual basis between the observer and teachers revealed some of the feelings of the individual teachers and such themes were drawn upon in the interviews to provide a starting point for the discussion. Issues of stress and workload were also raised with the staff during the interviews.

The teachers at Pear Tree School were interviewed following observations in both classrooms, when an initial analysis of the data gathered had been completed and following the completion by the teachers of the Record of Teacher Time. The teachers at Haybarn School were interviewed at an equivalent stage of the research at their school. This allowed me time to formulate an interview schedule which was more considered and complete than if it had been based upon observations in only one class and also allowed me opportunity to discuss the time diary with the teacher.

Interviews with the teachers of each school were conducted either at their homes or in the school, depending upon the preferences of the individual staff. None chose to be interviewed on 'neutral ground' away from both home and school. Interviews were conducted in private, away from other staff and each headteacher saw the need for this and, without prompting, offered their offices for use, both commenting that they were the only rooms in the school where there would be no disturbances. Each interview was tape-recorded, thus preserving an objective record of the actual conversation which could be re-analysed in full after the event. In addition, brief notes were made of the conversation whilst the interview was taking place. The notes provided a back-up to the tape in case of mechanical and also detailed the date, time and location of the interview and impressions of the interviewees disposition and attitude. As Stenhouse argued, the combination of these two means of data collection enrich the "texture of reality" (Stenhouse, 1978 in Wellington, 1996, p.34).

The interviews were semi-structured. Whilst I asked opening questions and had a schedule with these questions listed and some key words which functioned to remind me of areas which were to be covered, the direction and order of the interviews were guided partly by the teachers. The interview questions fell into five sections which were linked to the issues arising from the review of the existing literature. A full copy of the schedule can be found in Appendix C. The sections were as follows:

- 1 A brief, structured check-list of questions concerning the background details of the respondent, eliciting data on his/her teaching career, qualifications, experience and current responsibilities
2. A question regarding the teachers perceptions of their own teaching:
(Whole class, group and individual teaching; differentiation by age and ability; priority of subject areas; differences between subjects and between for example the morning and afternoon)
3. A question to discover the meanings which the teachers attach to their work in small schools and the elements of their jobs which they see as being peculiar to teachers working in a small schools and secondly a question regarding the curriculum in his/her class
4. A question to discover the extent to which the teacher feels the observer has influenced his/her practice
5. A final question open to the teachers

All class teachers in the study consented to give an interview. Teachers were given choice in selecting when and where the interview should take place. Immediately before each interview, I went over the questions with the teachers, clarifying meanings and allowing them some time to consider their answers. George Patterson from Pear Tree School, whilst being very amiable when asked for an interview, managed to give a reason why he could not arrange a specific time to be interviewed each time I asked him. Eventually it was seen, as in the case of George's failure to complete the ROTT schedule, that he was merely being evasive and without saying so directly, was refusing.

The teachers chose a variety of locations for the interviews. Mike Harris chose to be interviewed after school in the staff room at Pear Tree school. He felt that his children would disturb any interview at his home. Rosemary Taylor also chose to be interviewed at school, but in her case it was over lunch, in the Headteacher's Office: the only quiet place in the school.

Linda Meadows and Jean Martin were interviewed together at Linda's home on a Monday morning. This joint interview was instigated as Jean had been very apprehensive about giving an interview, so, with Linda's encouragement, she was persuaded to talk to me with Linda. The strategy of a joint interview proved successful as each was able to add to the other's thoughts and reflections as well as to confirm facts.

Documentary Evidence

In order for the observation periods and ensuing interviews to be placed fully into context and to add depth to my knowledge of the school and classes, documents which have been prepared at both a class and school level were gathered. With reference to the distinction made by Burgess (Burgess, 1995, p.124), these data can all be considered to be primary sources; that is, they have a direct relationship to the case study schools and classes and they are all unsolicited in that they have been produced without research in mind, although many had been written with a prospective audience other than the school staff, for example OFSTED inspectors. Before the period of observation, where they existed, the researcher gained access to all of the following sources:

- *long term planning*

including the School Development Plan, school curriculum and policy documents, class programmes of study/ details of topics to be covered on an annual or longer term basis;

- *medium term planning*

including termly class plans prepared by the individual teacher;

- *assessment records*

including both short term class record sheets, internal assessments such as reading tests and 11+ and end of Key Stage results;

- *teacher job descriptions* and details of their duties;
- *H.M.I. report or other inspection materials, such as the Headteacher's statement*

During the period of observation I gathered a limited number of copies of the short term plans prepared by the teacher. For a majority of lessons, no written plans were available at all and where they were written they were brief and lacked detail or description. Mike, for example was observed using a plan for Art which comprised the words "Boogy Woogy Broadway, demonstration, two groups, paint, paper, rulers". The daily or weekly plans, written for the individual's own reference were, in essence, private documents, not written for public consumption and so were incomplete. However, "all documents are written in a social context, with some audience in mind, even if the audience is only the author . . . documents must be sceptically read and examined in their social context" (Delamont, 1992, p.105) so, not only did these plans add strength to the observations, but it was also hoped that they would reveal a more realistic picture of the curriculum in the schools than the public policy documents produced for examination by parents, governors and perhaps most importantly, the Inspectorate.

Other sources became available, for example the minutes to governors' meetings and staff meetings which provided further insight into the work of the teachers. These were initially asked for by the researcher before the period in school began. However, it was realised that some contained sensitive information and therefore that staff may not have been willing to release them. At each school the researcher was treated in the same way as other staff and automatically given a copy of all letters, minutes of staff meetings and notices, indeed, it was a joke at Pear Tree School on one day when the headteacher tidied and re-labelled the staff pigeonholes that the researcher should be given a pigeonhole too. These sources were often seemingly trivial in nature, for example, notifying the presence of head-lice in the infant class or an invitation to an evening dinner to say farewell to a retiring dinner lady but it was remembered that "It is important not to despise any documentary source, because however 'edited', 'censored', or 'trivial', it can lead to fresh questions for the researcher" (Delamont, 1992, p.108). The documentary data not only provided background to the observations, but also provided material for discussion during the interviews. Additionally,

documentary evidence of planning and assessment mechanisms provided some evidence on how the teachers concerned planned to effectively cater for the pupils in their class and how they monitored progress. Long term plans on a class level allowed me to make some judgements as to how the curriculum was covered in the mixed age classes, where the pupils stayed with one teacher for up to four years. In a research project where the field work can only continue for a year, such information can only be gathered through planning documents.

Teacher Time Records

During the week immediately following the four week period of participant observation in each class, the class teacher was asked to complete a time diary, in order to gain a further insight into the work of the teacher. This was the same as that used by Campbell and Neill (1994) (see Appendix D for details on completion of the Record of Teacher Time).

It was not seen to be necessary for the ROTT schedule completed by the class teachers to be piloted as the instrument was identical to that used by Campbell and Neill (1994) and had been piloted and used extensively in their series of studies. The Headteacher ROTT however, differed from the standard schedule in that extra categories concerning the management and administrative duties of headteachers were included. These extra categories were based upon existing research (Mortimore *et al* (1988), Blease and Lever (1992), Webb and Vulliamy (1996)) (detailed in Appendix E) and were added in order to distinguish the work which specifically arises from the duty of being a headteacher as well as a class teacher. On giving the schedule to the headteachers, they were instructed to detail any activities which did not easily fall into the specified categories, in order for them to be coded later.

The additional categories concerning the work of the headteachers were those of:

i. Management and Policy-making

meetings and courses of a long term nature, related to the management of the school and attended specifically in the role as headteacher, for example, Governors meetings, auditors meetings, Inset courses relating to management of schools, interviewing and appointment of staff procedures;

ii. Administrative and Clerical work

related to the day to day running of the school, and by their nature taking place on school premises, for example, answering telephone enquiries, organising time sheets for lunchtime supervisors, showing prospective parents around school;

iii. Personnel Management

duties which fall to the headteacher on a day to day basis, which need to be dealt with in person, rather than on paper, relating to control, discipline and relationships between staff, pupils and parents, for example, settling disputes or assessing whether children should be sent home when ill.

The Research Process

Selection of Schools and Negotiation of Access

The schools chosen for the study were selected from those responding positively to a request for a copy of their prospectus, from a list of all primary schools covering both the 4 to 11 and 5 to 11 age range within the Warwickshire L.E.A. (28 in total) with fewer than 100 pupils listed on roll in 1995. Of those which responded, those with the fewest classes were considered for the project.

No single class schools responded to the request for a copy of their prospectus. One school with just two classes spanning the 5 to 11 age range replied, but this was due to be merged with a neighbouring school in September 1996, immediately prior to the commencement of the study. Of the schools which detailed three classes, the following divisions of age groups across those three classes were present:

- i. Reception; Years 1 and 2; Years 3 to 6
- ii. Reception and Year 1; Years 2 and 3; Years 4 to 6
- iii. Reception to Year 2; Years 3 and 4; Years 5 and 6.

Key Stage Two teachers were chosen to be the focus of this study as it is the teachers of this age range who have been considered to have the highest demands placed upon them in terms of curriculum delivery and required subject knowledge (Alexander, Rose and Woodhead, 1992, para. 121; Campbell, 1993, p. 25; Richards, 1993, p.233). In theory therefore, they would be most subject to intensification, and whose work would exemplify the features of being a teacher in a small school most fully. In order to present a complete picture of the teachers work at Key Stage 2, schools organised with a mixed Key Stage 1 and 2 class (ii. above) were seen to be problematic: study of the top class alone would have presented only a partial view of Key Stage 2 teaching in the school, whilst inclusion of the mixed Key Stage class would have provided the extra dimension of some Key Stage 1 pupils which would have possibly distorted or detracted from the main focus of the study.

The schools which were chosen to be approached for the study were those which according to their brochures had just three-classes with classes organised as either i. or iii. above. There were three such schools and they were able to demonstrate a range of classrooms, both in terms of class size and class composition. According to the prospectus, the smallest school had just ten children in the Key Stage 2 class: whilst the pupils spanned a four year age range, there were only two or three pupils in each year group. When approached, the headteacher of this school was unwilling to give the researcher access to his school.

Following our meeting, the headteacher of the second of these two schools, Haybarn School, agreed to allow the research to go ahead in her school. She held reservations about allowing the researcher into the school as she saw the difficulties in providing acceptable differentiation and curriculum coverage to be the 'Achilles heel' of small schools with mixed age classes and saw her school, which was Grant Maintained, as vulnerable to bad publicity. Anonymity of the school was guaranteed and the audience of the final report was discussed before she agreed to my entry into the school.

The response of the head teacher in the largest of the three schools, Pear Tree School, was particularly welcoming. She saw the presence of an 'extra body' in her school to be a useful resource which she could not afford to turn down. Since the production of the school prospectus, the school had expanded to four classes structured as follows:

Class 1: Reception;

Class 2: Year 1 and 2;

Class 3: Year 3 and 4

Class 4: Year 5 and 6.

At the time of agreement, there were 102 pupils on roll but during the course of the study this rose to 106, of which 19 pupils were in the Reception class.

On the first visit to each school, when access was negotiated, I gave the headteacher written details of the research process (see Appendix F). This ensured that the headteachers were fully informed about the data which I required and also provided them with a detailed list to give to the participating teachers. All participants were guaranteed anonymity therefore pseudonyms have been used throughout this text.

In each school, whilst shadowing the headteacher, the researcher was allowed access to all but sensitive meetings, such as those with parents who had grievances. On such occasions, the headteachers debriefed the observer following the meeting.

Timetable of the Research

The equivalent of four weeks were given over to participant observation in each of the three classrooms. The three term cycle of the school year and its influence on primary school activities is an issue which in a one year study is difficult to address. Inevitably in this study, a proportion of the observation time in one of the four classrooms was to be influenced by activities concerned with Christmas. Similarly, the preparation for the 11+ examination could also have affected classroom observations during the spring term as well as preparation for end of Key Stage testing. Indeed, the

definition of a 'typical' school term or school day may be considered as elusive as that of a 'typical' school. An alternative means of organising the observational research would have been to spend one week in each school during each of the four half terms. This, however, would have been unsatisfactory, leading to data of a fragmented nature being gathered, whereby I had spent insufficient blocks of time in each school to fully contextualise events and to develop relationships and build trust with both the staff and the pupils concerned in order that the lessons observed were as natural as possible.

The time schedule of the research was planned to be as follows:

Autumn Term, 1996 - Pear Tree School

- Week 1: preliminary gathering of documents from the school
Weeks 2 onwards: participant observation in Class 3, followed by the same in Class 4

Spring Term 1997 - Pear Tree School

- Week 2 onwards: completion of 20 days participant observation in Class 4
teacher interviews
completion of the record of teacher time
20 days (4 teaching) shadowing the head teacher
systematic observation of English and Mathematics

Summer Term 1997 - Hay Barn School

- Week 1: preliminary gathering of documents from the school
Weeks 2 onwards: participant observation in Key Stage 2 class
teacher interviews
completion of the record of teacher time
20 days (10 teaching) shadowing the head teacher
systematic observation of English and Mathematics

The Pilot Study

Rationale and Methodology

A pilot study was conducted in one of the small schools responding to the original request for a prospectus which had a mixed Key Stage Class. The pilot study in a small school allowed me opportunity to gather observational data in the form of field notes set against a time record. The purpose of this was twofold: firstly, it was necessary to assess the relevance of the resulting notes and to check the feasibility of making such notes whilst being under the direction of the class teacher during lesson time. Secondly, it was necessary to determine the nature of tasks which I could undertake which would keep alterations to classroom organisation and management to a minimum and would not result in my being too busy to adequately track the teacher and record his/her actions.

The pilot study was conducted in July 1996 in a 5 to 11 primary school. The school was located within ten miles of each of the schools in which the main study took place. The school had three classes, one of which had pupils who spanned both Key Stage 1 and 2 and for this reason the school had been deemed unsuitable for the study itself as the Key Stage 2 teachers could not be isolated. In many ways however, the school was similarly organised to those which were chosen for the main study. Most importantly, there were seventy four pupils on roll and therefore the school was of a suitable size and the head teacher had a Key Stage 2 class teaching commitment. The three classes were organised and staffed as follows:

Class 3, Mrs. Simpson

Reception and Year 1: 23 pupils taught in the original Victorian school building. In addition to the class teacher, the pupils received help in every morning session from a classroom assistant.

Class 2, Mrs. Coombes

Year 2, 3 and the 'less able' Year 4: 26 pupils taught in one of the two temporary classrooms adjacent to the main school. The pupils received additional support for two hours on each of two mornings per week from a classroom assistant.

Class 1, Mr. Smith and Mrs. Collins

'More able' Year 4, Year 5 and 6: 25 pupils taught by Mr. Smith, the head teacher, for 0.6 of the week and by Mrs. Collins for 0.4 of the week. In addition, one child with special needs worked with the Class 2 assistant for two hours per week.

In addition, each class was taught Music by a visiting teacher for half an hour each week.

I spent one week in Class 1 of the school, after having negotiated access with the head teacher. During this week, I took on the role of classroom assistant, working under the direction of the class teachers.

Notes were made and informal discussions followed with both Mr. Smith and Mrs. Collins on the nature and background of what had been observed. Both staff were either absent or unavailable in the term-time which remained following the pilot study, so recorded interviews could not be obtained from them.

Implications of the Pilot Study

The main study required detailed notes to be made of each teacher's work throughout the school day. The activities which the teachers asked the researcher to complete during the pilot study varied in their nature and it was important to assess which allowed the researcher most time to make field notes and which were least intrusive into classroom life. Three broad categories of task emerged. Firstly, those tasks which occupied my time most fully and were felt to alter the organisation of the class most seriously, secondly, those tasks which, whilst not altering the fabric of a lesson, proved too time consuming to allow me to make adequate notes and thirdly, those activities which neither altered the lesson significantly nor occupied the researcher too fully.

The first category of activity included such tasks as working with a group of children. I was asked to help a group with a Science investigation and to take on the role of chairman in a group discussion. On some of these occasions, I was asked to work with the less able children, thus

releasing the class teacher from this responsibility. It was felt that in my absence, the group would have demanded the attention of the class teacher for a significant amount of time. At other times I was asked to work with a group of children on an different activity to the rest of the class and it was clear, through the fact that the activity required adult supervision, that the structure of the lesson was altered by my presence.

On some occasions, I was asked to hear individual children read and whilst this was an 'extra' in the sense that the teacher would not normally have had the time to do this, it caused only limited disruption to the lesson, yet this fell into the second category of task as it proved to be too demanding as I was required to follow the child's reading and engage with the child, as well as to record the details in a class record book. Making field notes was further disrupted on such occasions when, for example, the child required the my help in collecting the next reading book in the scheme from the class bookshelves or in finding his reading book in their desk or satchel.

Work which was not directly related to the lesson in hand, such as mounting or marking work and tidying the classroom fell into the third category of task: it could be done at my own pace, with breaks being taken as necessary in order to make field notes. Further, the work could be done at the side of the classroom without disturbing the children or teacher. Although some children still asked for help with their work, this had only minimal effect on the lesson. It must be noted that my presence was still felt to inevitably had an effect upon classroom life and the work of the teacher as his/her workload was being reduced.

In the main study, teachers were made aware of the activities which I was able to complete. Being in each school for such a long period meant that I became fully involved in school life and all staff, from time to time, asked me to help them. This was unexpected as it had not happened during the pilot project. I was able to take such work to the classroom in which observations were being carried out and had the extra advantage that they did not affect the workload of the teacher under observation. Class teachers, for example, asked for me to mount pieces of work, mark Mathematics books or tidy boxes of resources. It was common for Brenda, the head teacher of Pear Tree School to

ask me to sort and staple multiple photocopies of policy documents and schemes of work in the run up to the OFSTED inspection of the school and for Susan, the head teacher of Haybarn School to ask me to mount work for wall displays and to laminate worksheets.

Examination of the field notes from the pilot project, showed that there was a need to focus more closely upon the teacher's activities, rather than the activities of the pupils. The following extract demonstrates an occasion on which, whilst noting the form of the children's activities, I failed to detail the teacher's location in the classroom and activities.

9.15 - 9.20 Hymn practice conducted using a pre-recorded tape. It takes the form of 4 hymns being played which the children sing along to. Disruption from the two back rows is either unnoticed or ignored (Class 1). The children stand for the first hymn but sit for the second as it is "gentler". The children barely sing to the second hymn as this is the first time that they have heard it.

The disruption caused by the pupils on the back rows and degree of participation of the children during the second hymn were seen to be largely irrelevant to the actions of the teacher. In this case, a more appropriate entry may have been as follows:

9.15 - 9.16 Teacher tells class that they are to sing out with the tape
9.16 - 9.17 Teacher operates the tape player from the front of the class, monitoring the children as they sing but not intervening
9.17 - 9.18 Teacher tells the class to sit down for the next hymn as it must be sung more gently
9.18 - 9.20 Teacher again operates the tape player and monitors the class as they sing

The pilot notes, by their nature, described the curriculum areas which pupils were engaged in. However, in the main study, notes focusing so closely upon the actions of the teacher could have led to these details being omitted and so the field notes in the study itself included a section for recording these details.

CHAPTER 4

GENERAL FINDINGS

Following an introductory description of the schools and their teachers, the findings relating to the class teachers are presented. They are set out in order to allow the reader to understand the nature of the work of the case study teachers from the macro to the micro-level: an overview of their whole working week followed by closer scrutiny of their time spent at school, followed by their work at different periods within the school day.

General findings for all class teachers are presented first. The work of the five class teachers is considered through drawing upon the time diary data and field notes of all of the class teachers together in order to provide an overall picture of their work. The data presented in this first section of the findings is used as a form of benchmark with which to inform the second section of findings, which detail the data gathered on each teacher individually. Thus the first section provides the continuum upon which individual teachers can be placed. The findings are compared throughout with those of previous studies, primarily with that by Campbell and Neill (1994) and the School Teachers' Review Body (1996).

Both the general findings and those for each teacher are presented in four sections as follows:

Introduction

Outlining the career history, teaching responsibilities, classroom and resources of each teacher followed by details of any special circumstances regarding the collection of both ROTT and observational data.

The Working Week

Including all hours worked, both on and off school premises and on both weekdays and weekends. The ROTT schedule provided the main source of data but was complemented by comments made by teachers during their interviews.

The School Week

Firstly, the ROTT data are examined and then compared to those data gathered through participant observation.

The Teaching Day

Following the consideration of the week as a whole, four elements of the 'teaching day' are analysed separately: time before and after school, breaktimes and lunchtimes, non-contact time and lesson time. This last analysis allows for description of the way in which firstly, the teachers organised their time when they were with their class, secondly when they had limited freedom during breaks and periods of non-contact time and finally when they were voluntarily on the school premises before and after school and so were fully autonomous.

The means by which the field notes were coded are described in Appendix G.

The Schools and their Teachers

Pear Tree School

There were two ways of reaching Pear Tree School by car from the south which reflected the uniqueness of its location. The first was through several miles of narrow country lanes which bounded a large shooting estate: by this route it was rare to encounter any traffic either vehicular or pedestrian, typified by one afternoon when the only traffic which I passed was a stray pig. The other route to the school was along busy A-roads along which there were frequent roadworks and traffic queues; these led through the town from which the school drew most of its pupils. This neighbouring town was the site of some light manufacturing industry.

The school had moved to its current location in 1965. The school buildings comprised a single storey building and two temporary classroom units: one double, one single. These were set on land sandwiched between a large out of town pub and steakhouse and farmland, on the edge of a village, which was itself a ribbon development. The school had a tarmac playground as well as

playing field with marked out football pitch and small running track which ran down to a copse and pool. Whilst the school did not own this rough land, the neighbouring farmer had allowed the school free access to the site for as long as was required and, during the period of research, teams of local college students began to develop this land into a woodland nature trail.

Every available space was used for storing equipment. Sports equipment and large sheets of card and materials for technology were housed in a shed on the far side of the playground. Additional storage space existed as stock cupboards in each of the classrooms in the main building. Science, Geography and History resources were housed in a store room in the main building and Art materials were kept in the fitted cupboards in the library. Record boxes, one foolscap box file per pupil, were stored in the school kitchen as were sewing materials and costumes. Stationery was stored below the photocopier in the staffroom.

The school had a hall with a piano, wall bars and some large gymnastics equipment, with an annexe containing percussion instruments and dining furniture. An office for the headteacher had recently been added, allowing the secretary more office space in the staffroom. The headteacher commented that it was sometimes still difficult to find a quiet place as her office was used by peripatetic music staff and other visitors: she commented that she had once had to talk to a distraught mother in the staff toilet as nowhere else was available.

The school comprised four classes, each located in a separate classroom. The Reception, Key Stage 1 and Lower Junior (Year 3 and 4 pupils) classes were each staffed by full-time teachers: Sarah Broughton, Sally Jones and Mike Harris respectively. Due largely to what the headteacher termed “a historical accident”, the Upper Junior (Year 5 and 6 pupils) class was staffed by three part-time teachers: Jean, with a 0.5 teaching contract, Linda with a 0.3 contract and George with a 0.2 contract as well as the headteacher, Brenda Jackson, who, at the start of the study taught the class for an afternoon each week, but relinquished this duty making Jean up to a 0.5 teaching responsibility during the observation period.

A 0.1 teacher had responsibility for Reception and Key Stage 1 Music teaching and also visited the school as a peripatetic music teacher. The Reception class benefited from a classroom assistant who was appointed for fourteen hours a week and, during the course of the study, a governor who had originally worked in the school on a voluntary basis, was appointed to work with a special needs child. Additionally, the secretary, a trained swimming instructor who worked part-time at the school swimming baths, taught swimming to groups of all ages.

Two unpaid helpers came into the school on a regular basis. Mr. Reynolds was a former parent who still came into the school for half an afternoon each week to teach football to the junior boys and Mrs. Moffatt was a former dinner lady who came in for two mornings each week to hear both the Key Stage 1 and 2 children to read. They were self-directed and teachers sent pupils out to work with them without any discussion regarding the work to be undertaken. The 0.1 peripatetic music teacher and her daughter, when she was home from college, arranged netball matches and taught netball to the Key Stage 2 girls.

Parents commonly helped in the Reception class hearing children read and working with groups. Others helped with secretarial duties, for example typing up schemes of work at home. Several parents were also active in clearing the pond and woodland for the nature trail. Most helped on a more informal basis in the Reception and infant classes, coming into school if they had a morning free. Parents were not observed working in either of the Key Stage 2 classrooms, except when they accompanied the classes on school outings.

Haybarn School

Haybarn School was set amongst farmland in a tiny hamlet a mile from the nearest A-road and some two miles from the nearest town. It had been opened in the autumn of 1877 as a board school and had become Grant Maintained in the spring of 1995 in order to avoid closure due to falling rolls.

The school was housed in two linked buildings: the original school house and the house in which, until the late 1980's, the head teacher of the school had lived, as well as a temporary classroom in which the Key Stage Two class was housed. There were several storage sheds and a concrete garage, also used for storage, sited behind the school. The headteacher's house had been converted, following the appointment of current headteacher, to house the library and kitchen downstairs and the headteacher's office, secretary's office/ staffroom and stock cupboard upstairs. The Reception classroom doubled as a dining room, the infant classroom as a place to rehearse for concerts and 'special assemblies' and the junior classroom as a hall for assemblies. Summer concerts and assemblies which parents attended went on in the yard at the back of the school and this in turn doubled as the area where the pre-school playgroup met when the weather was fine and an area for some P.E. activities.

During the period of research the school was undergoing major building developments: the description above goes some way towards explaining the need for these. Two further classrooms were being built: one to replace the temporary building as well as a library, entrance hall and new toilet blocks for the children. The existing library was to be extended and re-fitted to become a new office for the secretary. With this, the headteacher was moving into the larger of the two upstairs rooms and her office was being redecorated as a tiny staffroom. Further, the Infant classroom was being extended to allow for a cloakroom space and 'wet area' with sinks. Time-tabled for a year after the research was the extension of the Reception class to include a conservatory style play area and the extension and refurbishment of the kitchens.

Apart from the small yard, there was a large area set to tennis courts which was used as a playground. The tennis courts themselves had been funded in part by the National Lottery and were open to the local community when the school was closed. A playing field with climbing frame in one corner extended to the back of the school and there was a small fenced nature area in one corner with a pond.

The school's resources were of mixed quality. Recent investment had been made in areas which helped to present the school's public face to best advantage. There was a small table top photocopier which was due to be replaced with a very large and sophisticated one in the term following the research and there were items such as a laminator and binding machine. The secretary's office was equipped with a high specification computer and printer as well as a fax machine. In contrast, the stock cupboard was largely filled with low quality paper and card which had been donated: this may have been a reflection of the fact that the research took place in the summer term when all of the high quality and 'interesting' art materials and stationery had been used up, yet stored supplies of paper in classrooms contained none of better quality. This emphasis on the appearance or presentation of the school was a theme found in all aspects of the school's running. The library shelves were filled with outdated reference books, yet beneath the shelves were piled bags full of football and netball strips. In the junior classroom there was a television, video player, hi-fi system, two computers and six, rising to eight, word processors, yet only one revolving rack and two display shelves of reading books. The children wore full uniform and many parents displayed car stickers stating 'Haybarn School - a better start for your children' and during the research, bags with the school name and emblem were sold to parents.

There were three classes at the time of the research, yet the Key Stage Two class was to split into two classes in the following term and a new teacher was to be appointed. At the time of the research, the school was staffed as follows. The Reception class had a full-time teacher, Ann Thornton, yet for four afternoons each week the Reception and Infant class merged and the Reception teacher taught all three age groups. The Key Stage One teacher, Diane, had a 0.65 contract, teaching her own class every morning and on Wednesday afternoons and, for half of every Thursday afternoon, she taught the junior class Music whilst the headteacher supervised the Reception class. Susan Williams, the headteacher and Rosemary Taylor shared the teaching of the Key Stage Two class equally. A classroom assistant was employed part time in the junior class and a parent governor also helped in the class for one morning a week.

Additional to the teachers with a class responsibility, the school employed a 0.3 member of staff who worked as the Special Needs Co-ordinator and who taught a group of children in each class. Over the period of research, she was observed teaching the junior group and was seen to focus upon aspects of literacy and numeracy giving the members of the group the same or similar tasks and working independently of the class teacher.

One parent came into the school on a regular basis. She was a parent governor, who worked at the direction of Rosemary, the Key Stage 2 teacher. She would monitor the main part of the class in order that Rosemary could concentrate on small groups of children or individuals. Rosemary gave directions just before school began. A second parent taught the junior boys football on a less regular basis. No other parents were observed helping in the school, with the exception of those who accompanied classes on school outings.

A classroom assistant was employed at Haybarn School for two half days each week. One session was under the direction of Rosemary and one under Susan, the headteacher. Both teachers used the assistant either to work with groups or to move about the classroom monitoring the work of individuals. Instructions to the assistant were brief and the assigned tasks did not require preparation. At the end of lessons, no feedback was requested by the teachers and it would only be given if the assistant had anything exceptional to note. During the lessons themselves, the assistant worked independently.

An Overview of the Work and Teaching of the Five Case Study Teachers

As a group, the case study teachers had a diverse range of career histories. Mike, the youngest teacher in the study, aged 33, had formerly worked in market gardening. Rosemary, Linda and Jean had both worked in a variety of schools before taking on their present roles and George had formerly been a headteacher. These four teachers were aged between their mid-forties and mid-fifties. Mike had the least teaching experience, less than a year and George the greatest, thirty one years. The teachers who were studied as part of the PRISMS project were “indistinguishable

Table A0: A comparison of the contracted teaching time of the teachers and that recorded during the week of completion of the ROTT

TEACHER	TEACHING APPOINTMENT (ft.e)	NUMBER OF SESSIONS TAUGHT IN RECORDED WEEK
Mike Harris	1.0	10
Jean Martin	0.4	5
Linda Meadows	0.3	3
Rosemary Taylor	0.5	10
TOTAL	2.2	28

Table A1: Total recorded hours, weekly mean hours and proportion of total working time recorded by the two teachers who recorded a full week of teaching (data derived from the ROTTs of Mike Harris and Rosemary Taylor)

CODE	ACTIVITY	TOTAL HOURS	MEAN HOURS	PROPORTION OF ALL ROTT ENTRIES
multiple entry	TEACHING Mixed subject	9.55	4.78	7.97
TE	English, Language, Reading, . .	11.60	5.80	9.68
TM	Mathematics and Number	5.30	2.65	4.42
TS	Science	3.55	1.78	2.96
TH	History	1.25	0.63	1.04
TD	Design / Technology	1.15	0.58	0.96
TC	Art / Craft	3.55	1.78	2.96
TP	P.E. / Movement	4.05	2.03	3.38
TO	Other subject	1.45	0.73	1.21
		}41.45	}20.78	}34.58
PR	PREPARATION / MARKING Preparing and planning for learning	14.87	7.44	12.41
PM	Marking	7.12	3.56	5.94
PO	Organising resources and trips . .	10.58	5.29	8.83
		}32.57	}16.29	}27.18
IS	IN-SERVICE TRAINING Staff meetings, informal consultation	2.82	1.41	2.35
IR	Reading of professional magazines .	6.77	3.39	5.65
		}9.59	}4.80	}8.00
AP	ADMINISTRATION Discussion / consultation with parents	9.57	4.79	7.98
AD	Mounting displays	3.75	1.88	3.13
AS	Supervising children before . .	6.82	3.41	5.69
AL	Staff liaison outside school / K. S.	0.50	0.25	0.42
AW	Assembly / Act of Worship	0.52	0.26	0.43
AB	Breaks - free of work	2.95	1.48	2.46
AF	Breaks - not free of work	5.05	2.53	4.21
///	Registration, moving children . .	6.05	3.03	5.05
		}35.21	}17.63	}29.37
OA	OTHER ACTIVITIES Other Activities	1.05	0.53	0.88
	TOTAL	119.85	59.93	100.01

Table A2: Total recorded hours, weekly mean hours and proportion of total working time recorded by the two teachers who recorded a partial week of teaching (data derived from the ROTTs of Jean Martin and Linda Meadows)

CODE	ACTIVITY	TOTAL HOURS	MEAN HOURS	PROPORTION OF ALL ROTT ENTRIES
multiple entry	TEACHING Mixed subject	5.05	2.53	7.87
TE	English, Language, Reading, . .	2.60	1.30	4.05
TM	Mathematics and Number	2.40	1.20	3.74
TS	Science	1.80	0.90	2.80
TH	History	1.60	0.80	2.49
TG	Geography	1.50	0.75	2.34
TP	P.E. / Movement	1.45	0.73	2.26
TU	Music	0.65	0.33	1.01
TO	Other subject	1.25	0.63	1.95
		}18.25	}9.17	}28.51
PR	PREPARATION / MARKING Preparing and planning for learning	29.95	14.98	46.65
PM	Marking	3.50	1.75	5.45
PO	Organising resources and trips . .	4.00	2.00	6.23
		}37.45	}18.73	}58.33
IS	IN-SERVICE TRAINING Staff meetings, informal consultat'n	1.25	0.63	1.95
IR	Reading of professional magazines .	1.00	0.50	1.56
		}2.25	}1.13	}3.51
AD	ADMINISTRATION Mounting displays	0.60	0.30	0.93
AS	Supervising children before . .	0.15	0.08	0.23
AW	Assembly / Act of Worship	0.25	0.13	0.39
AB	Breaks - free of work	1.25	0.63	1.95
AF	Breaks - not free of work	1.25	0.63	1.95
///	Registration, moving children . .	1.65	0.83	2.57
		}5.10	}2.60	}8.02
OA	OTHER ACTIVITIES Other Activities	1.05	0.53	1.63
	TOTAL	64.20	32.10	100.00

Table A3: Total recorded hours of all four teachers, full-time equivalent hours and proportion of total working time recorded by the four teachers who completed the ROTT schedule

CODE	ACTIVITY	HOURS of a full-time equivalent TEACHER	PROPORTION OF ALL ROTT ENTRIES
multiple entry	TEACHING Mixed subject	5.21	7.93
TE	English, Language, Reading, . .	5.07	7.72
TM	Mathematics and Number	2.75	4.18
TS	Science	1.91	2.91
TH	History	1.02	1.55
TG	Geography	0.54	0.82
TD	Design / Technology	0.41	0.62
TC	Art / Craft	1.27	1.93
TP	P.E. / Movement	1.96	2.99
TU	Music	0.23	0.35
TO	Other subject	0.96	1.47
		}21.33	}32.47
PR	PREPARATION / MARKING Preparing and planning for learning	16.01	24.35
PM	Marking	3.79	5.77
PO	Organising resources and trips . .	5.21	7.92
		}25.01	}38.04
IS	IN-SERVICE TRAINING Staff meetings, informal consultat'n	1.45	2.21
IR	Reading of professional magazines .	2.78	4.23
		}4.23	}6.44
AP	ADMINISTRATION Discussion / consultat'n with parents	3.42	5.20
AD	Mounting displays	1.55	2.36
AS	Supervising children before . .	2.49	3.79
AL	Staff liaison outside school / K. S.	0.18	0.27
AW	Assembly / Act of Worship	0.28	0.43
AB	Breaks - free of work	1.50	2.28
AF	Breaks - not free of work	2.25	3.42
///	Registration, moving children . .	2.75	4.18
		}14.42	}21.93
OA	OTHER ACTIVITIES Other Activities	0.75	1.14
	TOTAL	65.73	100.02

Table A4: Summary of the Working Week: proportion of the working week spent on each of the five main categories (data derived from Campbell and Neill (1994, p.50) and the four Key Stage 2 class teacher ROTTs with full-time and part-time teachers considered separately)

CATEGORY	SAMPLE 3 (C&N, '94)	SAMPLE 4 (C&N, '94)	MEAN: FULL-TIME TEACHERS	MEAN: PART-TIME TEACHERS
TEACHING	36	35	34.58	28.51
PREPARATION	29	30	27.18	58.33
PROFESSIONAL DEV'T	12	11	8.00	3.51
ADMINISTRATION	24	26	29.37	8.02
OTHER	7	10	0.88	1.63
TOTAL	100	100	100.01	100.00

from . . . colleagues in larger schools” (Galton and Patrick, 1990, p.167). Similarly, in the present study, the variety of teaching backgrounds and histories of the participating teachers, albeit a very small number, was not distinctly different from the variety of profiles which might be found in the staff of larger schools.

The Working Week

As teachers worked in periods outside those which could reasonably be observed, the ROTT was used to establish the nature and extent of their working week. Four of the five class teachers completed this schedule. Of these teachers, three had part-time appointments, yet there were differences between the amount of teaching which they were contracted to do and the amount which they completed in the week in which they filled in the ROTT schedule. These are detailed in Table A0. Rosemary, who usually had a 0.5 teaching commitment, completed the schedule over a week when she taught the class for all of the five days and therefore she has been treated as a full-time teacher for this analysis. Jean completed the ROTT in a week when she taught for two and a half days rather than her usual two. The following analysis is based therefore on entries made by teachers who taught for between 0.3 and a full week.

These individual differences meant that consideration of the ROTT data from the four teachers as a group was problematic. Appendix H gives full details of how the completed ROTT schedules were interpreted. Briefly, Table A1 details the mean of the entries made by Mike and Rosemary, who taught for a full five days, Table A2 details entries made by Linda and Jean who taught for only part of the week and Table A3 presents the figures calculated for a full-time equivalent teacher.

The Broad Division of Work

Before considering Tables A1, A2 and A3 in detail, a broad picture of the distribution of the case study teachers work is necessary. Campbell and Neill (1994) divided the codes into five broad categories: Teaching, Preparation, Professional Development, Administration and Other Activities,

which each reflected a different element of teachers' work. The summary data of the working week using the aggregated entries for each of these broad categories, considering separately the mean of ROTT entries of the two teachers who recorded a full week of teaching and the two who recorded only part of the week teaching are compared to the figures presented by Campbell and Neill from samples which included Key Stage Two teachers (Campbell and Neill, 1994, p.50) and presented in table A4.

The number of teachers in this study is very small and comparison with other studies has been carried out by inspection of the raw data to see if there were any major differences. The recorded work of the full-time teachers in this study was broadly comparable to the work of other teachers. If the main categories are ranked in order of the proportion of time which they took, then all samples follow the pattern of the teachers studied by Campbell and Neill, with Preparation dominating, followed by Teaching, Administration, Professional Development and Other Activities. For full-time teachers, Teaching, Preparation and to a lesser extent Administration took similar proportions of time to those teachers in the study by Campbell and Neill. Professional Development took up a smaller proportion of their time, with this difference perhaps being explained by the fact that the sample was so small. Other activities only took a very small proportion of their time, perhaps surprising when one considers the miscellany of activities that a small staff have to share. The part-time teachers recorded far higher levels of preparation and this aspect of their work is discussed in detail in the final chapter. Briefly however, it seems that this is linked to the notion that a teacher's work is not finite and that the work to some extent expands to fill the time available. Administrative work accounted for a relatively small proportion of part-time teachers' work. This is discussed later but is linked both with the large amounts of time spent on preparation and the coding of work during breaktimes.

Total Time on Work

The four teachers completing ROTT schedules recorded a total of 184.05 hours of work. This equated to 65.73 hours of work per week per full-time equivalent teacher. Mike, who recorded a full week of teaching, worked nearly thirteen hours fewer than this second average. Although Rosemary

recorded a total of 67 hours worked, it was an untypical week because it included a school trip and two Parents' evenings. When these hours are excluded, her working hours fell to less than 59 hours. The part-time staff: Jean working 0.5 of a week and Linda, working 0.3 of a week, raised this average figure: working more hours pro rata beyond the school day. Mike and Rosemary's entries gave a mean of 59.93 hours worked or just over 55 hours when the school trip and Parents' Evenings are excluded.

In the work by Campbell and Neill (1994), two of the four samples of teachers completing the ROTT included Key Stage 2 teachers, although neither of these were exclusively so. The total hours worked by these teachers amounted to 52.7 and 53.5 hours respectively, broadly similar to the fifty hours recorded in the School Teachers' Review Body (1996, p.5). Mike recorded a similar length of working week to both of these studies (52.85 hours). Both the high amounts of time entered by the part-time staff and the 'extra activities' entered by Rosemary caused the other totals for time on work to be much higher.

Teaching

Of all of the five main categories of teachers' work, teaching accounted for the most consistent proportion of teachers' time. This was true both between individual teachers in this study and between the findings in this study and those samples in the study by Campbell and Neill which included Key Stage Two teachers. The proportion of the total working week found to be spent teaching by Campbell and Neill (36 and 35% for samples including Key Stage 2 staff) was broadly similar to the mean figure obtained for the full time teachers in the present study (34.58%).

Part-time teachers in this study spent a smaller proportion of their time teaching (a mean of 28.51%). This was in contrast to the small sample of teachers with between a 0.4 and 0.6 responsibility in the study by the School Teachers' Review Body for whom teaching represented the same proportion of their work as their full-time colleagues (40%). However, the School Teachers Review Body also concluded that as teachers' responsibilities increased, the average time which they

spent teaching decreased and it may be that the part-time teachers in the present study, having multiple co-ordinator posts were similarly affected.

Using the full-time equivalent figures, 21.33 hours were spent by the four teachers each week in teaching, the equivalent of 4.27 hours per weekday, a much higher figure than the 18.8 hours per week of the Key Stage Two teachers recorded by Campbell and Neill (Campbell and Neill, 1994, p.66). Two factors may help to explain these longer times spent in teaching, both being linked to the length of the school day.

Firstly, for Key Stage Two children, Pear Tree school had only an hour available for lunch and no afternoon break, thus school hours totalled twenty five hours each week. The afternoon break for Key Stage One pupils reduced their school hours to 24.15 hours per week. At Haybarn School, school hours totalled 24.15 hours for children at both Key Stage One and Two. The loss of an afternoon break at Pear Tree School had been a recent introduction with the sole purpose of lengthening the school day to allow more time for the National Curriculum to be covered. The time spent in class by pupils at each of the schools was equivalent to that at the upper limit of all schools in the PRISMS project, indicating that the two schools in this project had a relatively long day (Harrison, 1990, p.127). In turn, it would appear that small schools typically have more time allocated for lessons: the average of four hours and forty five minutes of contact time in the study by Campbell and Neill was at the lower limit of time in class for PRISMS pupils (Harrison, 1990, p.127).

Secondly, the physical process of allowing all children in a large school to have their lunch is time-consuming and often dictates that the lunch period extends over an hour or an hour and a half thus shortening the lesson periods. This in turn often leads to teachers running lunchtime clubs. In small schools, lunchtime is a much shorter process and so it is possible to allow only an hour for lunch. No lunch time clubs were run at either Haybarn or Pear Tree School. Some of the data presented by Campbell and Neill perhaps illustrates the theory that small schools have shorter lunch breaks in turn leading to longer hours available for teaching. The third sample of teachers used by

Campbell and Neill included teachers from a mainly rural education department in the Channel Isles. As a group, these teachers recorded the longest hours per week teaching: 18.8 hours (Campbell and Neill, 1994, p.67) and the shortest number of hours each week in miscellaneous activities which included by definition the running of school clubs: 2.7 hours (Campbell and Neill, 1994, p.116). Both the absence of any recorded non-contact time and relatively short time spent supervising children and in transition were influential in raising the amount of time recorded teaching.

Preparation

The four teachers recorded a total of 70.02 hours of preparation. The calculated time for a full-time equivalent teacher was 25.01 hours of preparation time each week, which in turn represented 38.05 per cent of the total time spent on work. The category of Preparation was divided into three sub-sections, broadly termed 'Planning' (PR), 'Marking' (PM) and 'Organising' (PO). Of these, Planning was the most time consuming activity, the full-time equivalent figures making up nearly a quarter (24.35%) of all work recorded. Organising took up a further eight per cent (7.92%) of all recorded work and Marking nearly six per cent (5.77%).

Campbell and Neill recorded all four samples of teachers to spend a much lower proportion of time on aspects of preparation: a mean of 15.7 hours, amounting to thirty per cent of all time spent on work. The mean proportion of time spent by Mike and Rosemary, the two teachers completing a full week of teaching was lower than this figure: only twenty seven per cent (27.18%) of entries. The part-time teachers however spent more than 58 per cent (58.33%) of their time in preparation, working both at weekends and on their days off.

Professional Development

The questionnaire responses from the PRISMS project indicated that the teachers in small schools were as likely to have attended in-service courses as their colleagues surveyed in larger schools, although, the number of courses attended was not specified. The only difference between the PRISMS teachers and non-PRISMS teachers lay in the subjects which the courses covered, with

PE and environmental studies being less frequent and computing and Religious Education being more frequent (Patrick, 1990, p.29).

The four teachers in this study recorded a combined total of less than twelve hours spent in aspects of in-service training or professional development. This, in turn, represented nearly six and a half per cent of the total time on work (6.44%) and just over four hours (4.23) per week for the full time equivalent teacher, less than the lowest total of 5.9 hours for all aspects of professional development returned by teachers studied by Campbell and Neill. The disparity between these two figures can possibly be explained by the fact that the samples in the Campbell and Neill study included teachers both travelling to and attending in-service courses and non-pupil days and perhaps reflects the intensive INSET training which was undertaken during the period of their research on training for the implementation of the National Curriculum. None of the Key Stage Two teachers in this study recorded these categories during the weeks of the ROTT. If the figures cited by Campbell and Neill for the categories of Meetings (IS) and Professional Reading (IR) are considered alone, then the totals for samples containing Key Stage Two teachers are 4.4 hours and 4.5 hours respectively: much closer to the full-time equivalent figure in this study.

Administration

The four teachers recorded a total of forty hours (40.4) spent in Administration. The full time equivalent figure was more than fourteen hours (14.42), a very similar figure to that recorded in the study by Campbell and Neill (1994, p.101). Campbell and Neill further divided this broad category into two sections: administration in contact with pupils, incorporating the codes for Registration and Transition (///), Worship and Assembly (AW) and Supervision (AS) and Administration out of contact with pupils. In their study, the detailed figure for sample 4, which included Key Stage Two teachers, of 5.25 hours per week being spent in administration in contact with pupils. The time for a full-time equivalent teacher in this study was very similar and amounted to 5.52 hours.

Whilst the overall time spent in administration in contact with pupils was similar to that in the study by Campbell and Neill, there were differences in the amounts of time spent on the

categories within this. The teachers were rarely required to attend the daily assembly and so time coded as AW was minimal, amounting to less than three minutes per day, but much more time was spent in supervising children. Campbell and Neill (1994, p.114-5) noted that the amount of time spent supervising children increased both in schools with less than 100 pupils on roll and proportionately as the number of age groups within the class increased and attributed this to the larger number of playtime duties allocated to each teacher with a limited staff and the willingness of such small-school teachers to work "beyond the bond" (Tomlinson, 1990).

Time spent in registration and moving children was only slightly higher than that recorded by Campbell and Neill: 2.75 hours per full-time equivalent teacher against 2.6 hours in sample 4 (1994, p.113). In contrast to this, Campbell and Neill found that teachers with classes of less than 21 pupils, including the teachers in very small schools and those in junior and middle schools spent significantly less time on this category. In the case of this study, not only were class sizes well above twenty one in all cases, but much of the time which was coded in this way was concerned with the weekly travel to and from the nearest swimming baths (the same pool in the case of both schools) : a fifteen minute journey each way at least, hence, whilst movement within the schools may have been reduced due to their small size, the number of children and lack of very local facilities seem to have outweighed this advantage.

Of the categories of Administration not in contact with pupils, time spent in consultation with parents was the most frequently coded, amounting to a full-time equivalent figure of more than five per cent (5.2%) of teachers time: 3.42 hours. This was about three times that in the study by Campbell and Neill and reflected the fact that three of the four teachers completed the ROTT in weeks of Parents' Meetings.

Mounting displays was coded for a relatively small proportion of time and amounted to less than two hours (1.55 hours) per full time equivalent week. This was much less than the mean of 2.2 hours per week in the Campbell and Neill study. Three reasons may account for this. Firstly, both schools had recently been inspected and displays from this period remained on the walls for longer

than usual. Secondly, the small size of the schools, especially Haybarn School which lacked a hall and entrance hall resulted in a limited area for displays outside the classrooms. Thirdly, only one of the three classes was sited in a permanent building, the other two were in temporary buildings which again lack wall space due to the amount of windows.

No teachers entered the code for non-contact time, despite it being clear in the entries and from observations, that their non-contact time was provided during assemblies when they were usually not required to attend. All such time was therefore coded in other ways, usually in aspects of preparation and marking.

The Recorded Breaks of the Teachers

The full-time equivalent figure for Breaks, either free of work or not free of work, was of 3.75 hours per week, or forty five minutes per day. The timetables of the school allowed for either seventy five or ninety minutes of breaks per day, the latter figure being higher as there was an afternoon break time-tabled at Haybarn School. As with Campbell and Neill, who recorded teachers to spend an average of sixty two minutes each day on these activities, the teachers in this study were clearly coding other aspects of work or supervision during time-tabled breaks. Of the seven class teachers who completed the ROTT there was substantial inconsistency in the way in which breaks were coded.

An examination of the AB and AF codes entered by Mike and Rosemary showed that these teachers spent a mean of eighteen minutes each day in breaks free of work and of thirty minutes in breaks working. Thus, a total of four hours were recorded as breaks each week, much less than the five hours recorded by the teachers in the study by Campbell and Neill. When entries made for all time-tabled breaks were examined, it was clear that break times were also recorded as being spent in aspects of preparation and marking (25 minutes each teaching day) and, to a lesser extent, in supervising children, staff liaison, staff meetings and registration and moving children (10 minutes each teaching day). Thus, for every ten minutes spent relaxing, thirty six were spent working.

Other Activities

Three codes were given in this category: OG (Governing bodies), OS (Extra-curricular) and OA (Miscellaneous). Only OA was recorded, with this category amounting to just over one per cent (1.14%) of teachers' work: equating to nine minutes per weekday for a full time equivalent teacher. In the study by Campbell and Neill, all three codes were used. Further, their samples containing Key Stage Two teachers spent 3.7 and 5.5 hours on all other activities: four times as much time as in this study. The explanation for this difference probably lies in the circumstances of the particular schools: there were no lunchtime or after school clubs run by Key Stage Two Teachers.

Work Outside School Hours

The teachers recorded a total of 52.3 hours spent on work at home. Of this, 30.5 hours were spent working on days off and weekends, 2.2 hours was recorded in the mornings before leaving for school and 19.6 hours in the evenings and afternoons after returning from school. All work before leaving for school involved aspects of preparation (codes PM, PR and PO) and all, except for nine minutes, was recorded by Rosemary. Preparation dominated the work of the teachers both on days off and weekends (totalling 26.5 hours) and in the evenings (totalling 17.15 hours). During each of these periods, the teachers also recorded reading (IR) and completing Other Activities. Linda was alone in recording Mounting Displays during these periods.

Mike and Rosemary who recorded a full-week of teaching worked for 8.85 and 8.8 hours at home respectively whereas Jean and , teaching for only part of the week, worked for approximately double that length of time at home: 18.95 and 16.3 hours respectively

Preparation : Teaching Ratio

Both ROTT and observational data were used to determine preparation:teaching ratios for each teacher. In the study by Campbell and Neill, this figure was calculated in two ways. Firstly, all time coded as teaching was compared to all time coded to be spent in aspects of preparation and secondly to the preparation figure when time spent reading professional journals was incorporated. The figures arrived at for the teachers in their study were 0.86:1 and 0.96:1. Preparation alone

Table A5: The Preparation : Teaching Ratio of Key Stage 2 Case Study Teachers

TEACHER	TEACH'G LOAD	PREP'N (HOURS)	PREPARATION : TEACHING RATIO	PREPARATION : TEACHING RATIO (inc. reading of professional journals .)
Campbell and Neill (1994, p.53)	1	15.70	0.86:1	0.96:1
MIKE HARRIS	1	13.15	0.65:1	0.81:1
ROSEMARY TAYLOR	1	19.42	0.91:1	1.08:1
JEAN MARTIN	0.5	20.70	1.79:1	1.88:1
LINDA MEADOWS	0.3	16.75	2.48:1	2.48:1
GEORGE PATTERSON	n/a	n/a	n/a	n/a

totalled 15.7 hours a week and the reading of professional journals just more than two hours (Campbell and Neill, 1994, p.53). The inexperience of teachers was not seen as contributory to this figure as seventy four per cent had “more than five years’ experience of teaching at the relevant key stage” (Campbell and Neill, 1994, p.53) (“more than six years’ experience in the relevant Key Stage”, Campbell and Neill, 1994, p.85). Campbell and Neill argued that it was most “likely that the hours spent on preparation are in some significant measure affected by the new requirements associated with the national curriculum being introduced at the time the data were collected” (Campbell and Neill, 1994, p.53). Further, they suggested that it may follow that these extended periods spent on preparation “would merely be a ‘blip’ arising from the novelty of the national curriculum” (Campbell and Neill, 1994, p.53-54). However, they continued to argue that it was unlikely that this assumption hinted at in other sources (Alexander, Rose and Woodhead, 1992; Coopers and Lybrand Deloitte, 1991) would be realised. Three reasons were suggested for this. Firstly, the gradual phasing in of the National Curriculum meant problems over a further five years, secondly, regular revisions to the National Curriculum seemed likely to continue and thirdly that the review of the curriculum was due to take a further five years to complete. They therefore concluded that “routinisation is unlikely to be felt as a reality until the late 1990s at the earliest, though for Key Stage One teachers it might occur earlier than for Key Stage 2 teachers” (Campbell and Neill, 1994, p.54). Additional analysis of their data revealed also that Key Stage Two teachers who at the time of the data collection were not operating under the full prescription of the National Curriculum were spending an hour more time on preparation (Campbell and Neill, 1994, p.86).

The teachers demonstrated a wide variation in terms of preparation:teaching ratios as derived from the ROTT schedules. These data are summarised in Table A5 and compared to the figure derived for all samples in the study by Campbell and Neill (1994, p.53). The suggestion that the large amounts of preparation completed by the teachers in the study by Campbell and Neill were not due to lack of experience seems to be true in this case, as Mike, the teacher with only one year of teaching experience, had the lowest preparation:teaching ratio.

It can be seen that those teachers with the smallest teaching responsibility had the longest hours of preparation when compared to hours teaching. Rosemary, who also recorded a full week of teaching had the second lowest preparation:teaching ratio amongst the teachers. The week in which Rosemary completed the ROTT was exceptional in the sense that nearly fifteen per cent of her work was coded as the organising of resources and trips, with the week culminating in the annual class outing. It is impossible to extract the precise amount of time devoted to the school trip. However, if all entries related to the organising of resources and trips are removed from the total preparation time then the preparation:teaching ratio is lowered still further from 0.91:1 to 0.45:1 (0.62:1 if the reading of professional journals is incorporated).

The part-time teachers recorded far greater times spent in preparation for every hour taught. With a 0.5 teaching load in the week of completing the ROTT, Jean recorded more than an hour and three quarters of preparation for every hour of teaching. Linda, with only a 0.3 teaching commitment, recorded two and a half hours spent in preparation for every hour spent teaching. The part-time teachers all commented upon this aspect of their work, indicating that they were driven to some extent by their consciences. Rosemary emphasised the extra work which she did was in the main the result of being a part-time teacher: "It must be about twenty hours and I'm contracted to teach for sixteen hours and forty minutes at the moment. You sort of think "I'm not in this afternoon, I think I ought to prepare this or get this sorted out.". Linda also explained how she did more preparation: "They don't just get two teachers in situ, they get two teachers who are putting in twice as much! . . . I often think that if I worked full-time, I couldn't possibly do it (planning) to the degree that I do now."

Summary: the work of the teachers

Data derived from the Record of Teacher Time demonstrated that the work of the case study teachers was more influenced by the proportion of the school week for which they taught than by any other factor. What might be termed 'exceptional' activities, such as school trips, naturally place a heavy bias on such a limited sample. When these are taken into consideration, what remains is the sense that the full time teachers were working broadly similar hours to teachers in larger

schools. Additionally, the full-time teachers divided their work across the five broad categories in a similar way to those studied by Campbell and Neill. Time spent on preparation was slightly higher than that spent by the teachers studied by Campbell and Neill: for the full-time teachers, this additional preparation time of less than an hour may well be linked with the longer teaching week. The recorded working week of the teachers was not greatly affected by the size of school in which they worked. Differences existed only due to a longer teaching day which had arisen largely through a decision to increase teaching hours and make more time available to deliver the National Curriculum.

The part-time teachers worked far longer hours pro rata than their full-time colleagues and it is this contractual difference which distinguished the case study teachers from others. The longer hours were accounted for by time spent on preparation. Proportionately much less of their time was spent on aspects of professional development and administration. They focused on their work at a classroom level, rather than at the school level. For these teachers at least, school size had only a limited effect on their working lives and their contracted teaching time was a far more influential issue.

Both full and part-time teachers spent less time on Other Activities than those studied by Campbell and Neill. This is a surprising finding, as it has been argued that teachers in small schools have a greater number of miscellaneous tasks to fulfil than their colleagues in larger schools.

Teaching and the Curriculum

The ROTT schedules provided information on the proportion of lessons recorded in each subject area across complete teaching weeks in two of the classes and 0.8 of the week of the remaining class. Time spent on each of the curriculum areas are detailed in Table A6 with Table A7 using the same data but disaggregating all multiple entries. Entries for the day on which Rosemary took her class on a school trip have been excluded from this analysis as this was seen as an exceptional occasion on which she recorded multiple teaching entries throughout the whole day,

Table A6: Teaching time and curriculum area (data derived from the ROTT schedules) indicating the total time recorded on each curriculum area and the percentage of the total which that represented (entries of more than one curriculum area coded as Mixed subjects)

CODE	ACTIVITY	TIME (HOURS)	% OF TOTAL
multiple entry	TEACHING		
	Mixed subjects	14.60	24.44
TE	English, Language, Reading, . .	14.20	23.77
TM	Mathematics and Number	7.70	12.89
			}36.66
TS	Science	5.35	8.95
TH	History	2.85	4.77
TG	Geography	1.50	2.51
TD	Design / Technology	1.15	1.92
TC	Art / Craft	3.55	5.94
TP	P.E. / Movement	5.50	9.21
TU	Music	0.65	1.09
TO	Other subject	2.70	4.52
TOTAL		59.75	100.01

Table A7: Teaching time and curriculum area (data derived from the ROTT schedules) indicating the total time recorded on each curriculum area and the percentage of the total which that represented (entries of more than one curriculum area disaggregated)

CODE	ACTIVITY	TIME (HOURS)	% OF TOTAL
TE	TEACHING		
	English, Language, Reading, . .	24.30	40.67
TM	Mathematics and Number	13.20	22.09
			}62.76
TS	Science	8.45	14.14
TH	History	6.25	10.46
TG	Geography	3.00	5.02
TD	Design / Technology	1.15	1.92
TC	Art / Craft	3.55	5.94
TP	P.E. / Movement	5.50	9.21
TU	Music	0.65	1.09
TO	Other subject	2.70	4.52
TOTAL		59.75	100.01

Table A8: The Curriculum Complexity Ratios of the five Key Stage Two Teachers (ROTT data not available for George Patterson)

TEACHER	ROTT CCR	OBSERVATION CCR
MIKE HARRIS	1.11:1	1.20:1
JEAN MARTIN	1.71:1	1.33:1
LINDA MEADOWS	1.22:1	1.09:1
GEORGE PATTERSON	n/a	1.00:1
ROSEMARY TAYLOR (excluding time on school trip)	1.13:1	1.40:1
All samples (Campbell and Neill)	1.90:1	n/a

even when she was on the school coach and during lunch. The traditional dominance of the basics of English and Mathematics was apparent. As single subjects, these areas represented 36.66 per cent of the total teaching time. Further they were frequently included in the entries of mixed subjects: when all multiple entries are disaggregated, English and Mathematics were recorded to be taught during nearly two thirds of all teaching time (62.76%). In addition, Susan taught some of both the English and Mathematics curricula and also taught all of the Science curriculum to the Key Stage Two class of Haybarn School and George taught some elements of both Mathematics and English to his class. This suggests that had data regarding these teachers had been incorporated into the analysis, the core subjects would have remained dominant.

Curriculum Complexity Ratio

The Curriculum Complexity Ratio (CCR) gives an indication of the “extent of curriculum integration and / or multiple focus teaching” (Campbell and Neill, 1994, p.72): curriculum integration being defined as the practice of teaching through topics and multiple focus teaching the practice of arranging the class into groups each completing work in different subjects. Campbell and Neill (1994, p.67) reported differences in the CCR between their samples: overall a CCR of 1.9:1, yet the two Key Stage One samples recording CCRs of 2.2:1 and 2.3:1 and the mixed Key Stage One and Two samples recording CCRs of 1.6:1 and 1.7:1, indicating that the CCR for Key Stage Two teachers alone was lower still. The higher CCRs recorded by Key Stage One teachers was seen, in part, to reflect the “curriculum ideology and pupil needs” (Campbell and Neill, 1994, p.74).

In this study, the curriculum complexity ratio for each teacher was calculated in two ways: firstly by drawing upon the data derived from the ROTT in order to make a direct comparison with the CCRs generated by Campbell and Neill (1994) and then by drawing upon the coded observational data. These data are presented in Table A8. It was expected that the CCRs derived from the observational data would be lower, reflecting a less complicated delivery of the curriculum for two reasons. Firstly, the observations were not coded as involving more than one curriculum area if only one or two children were engaged in a different activity to the rest of the class: for example if a child was writing up a story on the word processor whilst the rest of the class did Mathematics,

this was coded as single subject Mathematics teaching, whereas the teacher may have included this child by recording both Mathematics and English simultaneously. Secondly, the field notes recorded a maximum of three subjects occurring simultaneously, again possibly leading to a more simplistic view of the curriculum.

Rosemary completed the ROTT in a week when the class went on a trip, during the whole of which she recorded between five and seven subjects being taught simultaneously. The figure given ignores this exceptional day which, in such a small sample, would have excessively distorted the data. As can be seen from the table, there is no clear pattern of agreement or disagreement between the two analyses. When the figures were examined for each teacher individually, no consistent pattern of ROTT data presenting a more complex view of the curriculum than the field notes emerged. Over all teachers the ROTT CCR averaged 1.30:1 and the observational data 1.20:1. What is notable, is the fact that the CCRs, with the exception of Jean's ROTT derived CCR, are all much lower than those calculated in the study by Campbell and Neill (1994, p.67), which, over all four samples of teachers derived an average CCR of 1.90:1. However, the mean CCR derived from the four ROTTs is 1.30:1, perhaps close to the findings by Campbell and Neill which suggested that the CCR for Key Stage Two teachers in isolation would be lower than 1.6:1.

Single Subject : Mixed Subject Teaching Ratio

The field notes, as has been noted, did not allow for a wholly accurate calculation of the CCR to be derived. It was possible to make a slightly different comparison between the proportion of teachers' times spent teaching single subjects and time spent teaching integrated subjects and multiple focus lessons. This comparison was made using both ROTT and observational data and is summarised in Table A9.

One part of the observational data provided a record of the subjects being taught in terms of the nature of the tasks which the children were involved in. This allowed for some comparison to be made with the ROTT schedule. The ROTT data only allowed for a broad picture of lessons to be recorded, largely due to the three minute divisions on the recording sheet; all teachers recorded their

Table A9: The Proportions of time spent on single and mixed subject teaching (data derived from ROTT and participant observation)

TEACHER	ROTT SINGLE	OBSERVATION SINGLE	ROTT MIXED	OBSERVATION MIXED
MIKE HARRIS	49.93	61.21	6.57	10.84
JEAN MARTIN	44.66	46.18	18.63	18.68
LINDA MEADOWS	47.44	54.25	15.35	6.99
GEORGE PATTERSON	n/a	64.32	n/a	0
ROSEMARY TAYLOR	38.37	40.24	19.66	19.82

lessons in blocks similar to a timetable. Within the field notes however, subjects were only detailed when the class were actively involved with tasks. As examples, the field notes excluded time at the beginning of lessons when the children were settling and time when the teacher stopped the lesson for several minutes so that the secretary could give the class details of the swimming gala; thus, the field notes included the detail of 'evaporated time' within lessons.

Using the ROTT data, two figures were extracted for comparison. From entries made during what was classed as the school day, the percentage of time coded as teaching only one subject and the percentage of time coded as teaching more than one subject area were compared. Using the observational data, the proportion of all observations for which the whole class was involved in one subject was compared to the proportion of time that children were involved with more than one subject or in topic work. Further, as with the CCR calculations data regarding Mike's lessons generated a low figure for mixed subject teaching and data for Jean generated a high figure for mixed subject teaching.

There were high levels of agreement between the ROTT and observational data (presented in Table A9), for all teachers but for Mike and Linda. This may be accounted for by the fact that observations of these two teachers were limited through outside commitments of the observer. Hence, whilst the ROTT represents a whole week of recording, the observations did not represent a balance of all weekdays. For Mike no observations took place on Wednesdays and of the six days on which Linda was observed, only one was a full day of teaching.

Mike, the full-time teacher and George, with only a 0.2 teaching commitment, had the highest proportions of time spent teaching single subjects. With the exception of the data for Rosemary, the higher proportions of time spent in teaching single curriculum areas seems to have been related to the provision by individual teachers within the school week of 'finishing-off' periods rather than to large differences in the amount of cross-curricular work. With a full-time teaching commitment, Mike adhered to a timetable organised by curriculum area. He typically gave pupils new exercises to complete each lesson. If these were not finished, Mike would either mark work on

the basis of what each child had completed, or, much less frequently, in cases where the quantity of finished work was unsatisfactory he would assign it as homework. George had an almost peripatetic role in the school whereby he taught specific curriculum areas with each lesson either being part of an ongoing project, such as the construction of models in Design Technology, or an isolated unit which lasted just the length of the lesson. The limited amount of written work required in his lessons also meant that 'finishing-off' was not necessary. Linda also taught discrete subject areas and her lessons were so structured that learning was broken down into small steps and between each step Linda paused and expected all of the class to keep up.

For both Mike and Linda, mixed teaching was used as a vehicle to allow the use of limited apparatus: some pupils would be working on other tasks whilst others, for example, conducted Science investigations. Jean's lessons largely involved written work and so time was routinely set aside for pupils to catch up with all unfinished work, hence accounting for the high proportions of time recorded as mixed subject teaching. Rosemary was alone in the sample as a teacher who set time aside for multi-focus topic work, rather than separating History, Geography and Design Technology into their individual elements.

Summary: teaching and the curriculum

Typically, teachers have been found to spend fifty per cent of their time teaching English and Mathematics (Meyer *et al*, 1992). The teachers in this study recorded only a third of their teaching time teaching these subjects singly, yet nearly two thirds of all teaching entries involved English and Mathematics. It would seem therefore that the dominance of the basic subjects was greater in these classes than in others studied previously. This concentration on the basics appears to distinguish these teachers from others studied previously and distinguished them from those studied in the PRISMS project who spent less time on the basics than their colleagues in larger schools (Galton, 1993, p.15).

No clear relationship existed between the CCR derived from the ROTT schedules and observations. There is difficulty in isolating the CCR for Key Stage Two teachers in the study by

Table A10: Comparison of ROTT and Observational Data

ROTT ENTRIES	% OF ALL ROTT ENTRIES	OBSERVED ACTIVITIES	% OF ALL OBSERVNS
Teaching	59.26	3-19: Teaching	55.09
Preparation	11.94	25: Preparation	19.91
Staff meetings, informal Staff liaison outside school / KS	3.29 0.50 }3.79	26: Staff Meeting 22: Staff Liaison 20: E.A. Liaison 24: Other Liaison	0.21 1.90 0.14 0.40 }2.65
Reading of professional	0.00	21: Co-ordinator Role	1.94
Assembly	0.77	31: Assembly	0.32
Display	0.84		
Discussion with parents	1.19	23: Discussion with parents	1.07
Supervising children before . . .	3.95	29: Supervising children	3.21
Registration, moving . . .	7.54	1: Registration 2: Transition	1.96 3.98 }5.94
Breaks - free of work	4.07	27: Relaxation	7.33
Breaks - not free of work	6.35	28: Duty	2.43
Other activities	0.30	30: Other	0.20
TOTAL	100.00	TOTAL	100.09

Table A11: Total Time Observed on each of the Categories using data from all Five Class Teachers, indicating total time observed in hours and the proportion of all observations which this represented.

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVATIONS (%)
1: Register	6.51	1.96
2: Transition	10.23	3.08
WHOLE CLASS		
3: Instruction	10.89	3.28
4: Teaching	10.44	3.14
5: Story	6.15	1.85
6: Praise	4.03	1.21
7: Test	3.67	1.10
8: Class Enquiry	19.42	5.89
9: One way Class Enquiry	1.86	0.56
	}56.46	}16.98
GROUP		
10: Instruction	6.82	2.05
11: Teaching	11.95	3.59
12: Monitoring	8.61	2.59
	}27.38	}8.23
INDIVIDUAL		
13: Single Child	41.51	12.49
14: Reader	16.43	4.94
15: Special Needs	4.65	1.40
16: Mobile Monitoring	14.52	4.37
	}77.11	}23.20
17: Routine	12.73	3.83
18: Inert Supervision	6.87	2.07
19: Settling Time	5.28	1.59
20: Educational Assistant Liaison	0.48	0.14
21: Co-ordinator Role	6.46	1.94
22: Staff Liaison	6.31	1.90
23: Parental Liaison	3.57	1.07
24: Other Liaison	1.34	0.40
25: Preparation	66.19	19.91
26: Staff Meeting	0.70	0.21
27: Relaxation	24.38	7.33
28: Playground Duty	8.07	2.43
29: Supervising Children	10.66	3.21
30: Other	0.67	0.20
31: Assembly	1.07	0.32
TOTAL	332.47	100.00

Campbell and Neill. For all teachers however, it was 1.90:1 and for Key Stage 1 teachers alone it was more than 2.0:1. For the teachers in this study, the mean CCR was 1.30:1 and the mean observed CCR was 1.20:1. Not only were the teachers spending more time on teaching the basics, but they also concentrated on teaching single subjects. Observational data reinforced this finding and, in these classes at least, the integrated topic had almost disappeared. This may be explained by the tendency, as the National Curriculum has become planned and assessed in single subjects, to reduce mixed subject teaching as has been found in other studies. Observational data proved the teaching of multiple curriculum areas simultaneously to be more usually concerned with pupils 'finishing off' a variety of work and occasionally related to lessons where the necessary equipment was in limited supply .

The School Week

The ROTT data provided evidence of the teachers' work outside school hours as well as giving a sense of the way in which they spent time during the school day. Broadly speaking, the ROTT evidence suggested that the teachers' work was not notably different from the work of other teachers. Physical factors reflecting the school size, such as the number of children having lunch, were perhaps influential on the school day and consequently affected the working day. However, the contracted teaching time was the most important influence upon the work of these teachers.

Table A10 summarises the proportions of time which teachers spent on the main categories of activity presenting both ROTT data and the observational data together. Whilst there is close agreement between some categories, particularly the proportion of time spent in Discussion with parents, Supervising children and in Other Activities, disparities between other categories can briefly be explained in the following three ways. Firstly, the nature of the ROTT schedules meant that they provided less detailed data than the observations. The ROTT schedules were all completed to show blocks of teaching, yet the observations showed teachers to be engaged in activities other than teaching during lessons. Secondly, the ROTT codes were in some cases less specific than the observed codes. In the case of breaktimes, the general code of Breaks - not free of work was a more

Table A12: Before and After School (data derived from all observations of all class teachers)
expressed as both time observed in hours and proportion of all observations before and after school

ACTIVITY	TIME (HOURS)	PROPORTION OF TIME BEFORE AND AFTER SCHOOL (%)
1: Register	0.03	0.10
2: Transition	0.08	0.26
INDIVIDUAL		
13: Single Child	0.03	0.10
17: Routine	0.05	0.16
19 : Settling Time	0.07	0.22
20: Educational Assistant Liaison	0.03	0.10
21: Co-ordinator Role	1.36	4.37
22: Staff Liaison	1.52	4.88
23: Parental Liaison	2.91	9.34
25: Preparation	17.75	57.00
27: Relaxation	2.38	7.64
29: Supervising Children	4.53	14.55
30: Other Activities	0.40	1.28
TOTAL	31.11	99.90

broad brush category than that of Duty and so direct comparison is not appropriate. Thirdly, as has been described in the case of breaktimes, teachers interpreted the codes differently. These issues are discussed in the final chapter. Broadly however, Table A10 demonstrates substantial agreement between the ROTT entries and the observations.

The following section draws upon the observational data for all five teachers. Observations ran for more than 330 hours (332.47 hours) over a total of fifty days, from 8.30 a.m. until 3.45 (3.50 in the case of Rosemary) p.m.. Table A11 summarises the coded participant observation notes for all five class teachers. The ROTT data were limited, most obviously because they lacked detail and entries could not be put into context. The following consideration of the observations allows for a less speculative approach to understanding the teachers' work. The analysis considers different parts of the school day. By doing so, patterns in work become more evident and specific questions relating to their work and its intensity can be answered, for example, when were teachers finding time to relax? What were teachers doing during their time away from the class and what demands were their roles as co-ordinators making on their time in class? All such questions relate to the main focus of the study, that is, whether the work of these teachers differs from their colleagues in larger schools and has their work been subject to intensification?

Before and After School

More than thirty one hours of observations were made before and after school, just over thirty seven minutes a day and these are summarised in Table A12. During these periods, preparation was the dominant activity: photocopying worksheets in the mornings as well as collecting resources and organising the classroom by, for example, placing textbooks on desks. The second most frequently observed activity was that of supervising children. This involved both periods when it was raining before the start of school, causing children to enter the classroom early and waiting for children to be collected at the end of the school day. Usually teachers would continue either preparing for the day's lesson or would mark work whilst waiting for children to go home. It was assumed that during the latter of these periods the safety of the class was of foremost importance and so supervising children was the most appropriate code.

Table A13: Non-contact Time (data derived from all observations of all class teachers) expressed as both time observed in hours and the proportion of all non-contact time observed

ACTIVITY	TIME (HOURS)	PROPORTION OF ALL OBSERVED NON-CONTACT TIME (%)
21: Co-ordinator Role	0.66	4.42
22: Staff Liaison	0.95	6.36
24: Other Liaison	0.10	0.67
25: Preparation	11.42	76.49
27: Relaxation	1.53	10.24
29: Supervising children	0.03	0.20
30: Other	0.24	1.61
TOTAL	14.93	99.99

Table A14: Breaktimes and Lunchtimes (data derived from all observations of all class teachers) expressed as both time observed in hours and the proportion of the total which that represented

ACTIVITY	TIME (HOURS)	PROPORTION OF ALL BREAK AND LUNCHTIMES (%)
INDIVIDUAL 15: Special Needs	0.47	0.74
20: Educational Assistant Liaison	0.17	0.27
21: Coordinator Role	3.47	5.50
22: Staff Liaison	2.66	4.21
23: Parental Liaison	0.08	0.13
25: Preparation	24.34	38.56
26: Staff Meeting	0.53	0.84
27: Relaxation	19.26	30.51
28: Playground Duty	8.07	12.79
29: Supervising Children	4.04	6.40
30: Other	0.03	0.05
TOTAL	63.12	100.00

Mike Harris was the only teacher to code any breaks free of work outside school hours, yet teachers were, as has been noted, observed to relax outside officially time-tabled periods. This took its most obvious form before the school day began when staff gathered to have a cup of tea and chat in the staffroom. Whilst this was an almost daily event, for all but Rosemary, the teacher at Haybarn School, it took only an average of three minutes a day. The reason for this is that teachers would often go in and out of the conversations, stopping to read their post (coded as Co-ordinator role) or to talk with another member of staff about a school related matter (Staff Liaison).

Non-Contact Time

No non-contact time was formally available to any of the staff. Some time however was made available to them during school assembly time. In each school, the headteacher allowed, and indeed expected, teachers to remain away from the assembly and gave them the freedom to organise this time as they wished. At Pear Tree School the headteacher led every assembly. At Haybarn School, each teacher was required to take one assembly each week. Such assembly time is coded here as non-contact time as it was a period in the school day when teachers had opportunity to work away from the pupils. Observations are summarised in Table A13. This form of unofficial non-contact time amounted to less than fifteen hours of observations over the fifty days: less than eighteen minutes a day on average, and equating to the amount of time spent in the daily Act of Worship.

More than three quarters of this time was used by the teachers in aspects of preparation. Often this would be concerned with the following lesson and therefore take place in the classroom: setting out paints, collecting resources, placing worksheets and books on tables. Occasionally, teachers would do photocopying in the staffroom. Marking was not observed during these periods but sometimes records, particularly the reading records of individual pupils would be updated.

The second most frequently observed activity was that of relaxation. At Haybarn School assembly followed morning playtime and the teachers released from assembly would often stay either on the benches on the school field or in the school kitchen and treat the time as an extension

of their break. At Pear Tree School, activities coded in this way were most often occasions when returning from the school hall teachers stopped in a colleague's class to chat informally.

These periods also provided opportunities for staff to talk to each other, either regarding children or events going on in school or, less frequently to consult with subject managers or to read post regarding the subjects which they co-ordinated.

Little or no non-contact time has been noted as a feature of the work of teachers generally. Campbell and Neill (1994, p.111) calculated teachers to have six minutes a day of officially allocated non-contact time, of which "almost none of it was used for relaxation" (Campbell and Neill, 1994, p.211). Indeed, 37 per cent of their fourth sample had no non-contact time at all. In this sense, the teachers in this study did not differ from colleagues in other, larger schools.

Breaktimes and Lunchtimes

Pear Tree School had a morning break of fifteen minutes and lunch break of an hour formally set aside for all classes and an additional fifteen minute break in the afternoon for Reception and Infant pupils. Haybarn School had a similar timetable for breaks but the afternoon break was included for all pupils. This meant a weekly total of either 6.25 or 7.50 hours of breaks available for teachers.

More than sixty three hours of break and lunchtimes were observed and data are summarised in Table A14. Aspects of preparation were the main observed activities, taking on average nearly half an hour (29.21 minutes) each day. Nearly seventy per cent (69.49%) of all observed breaks were concerned with aspects of work, with breaks free from work accounting for less than half an hour each day (23 minutes). Some time was spent teaching, this was exclusively concerned with children with special needs, both those who had learning difficulties and in one case, a child who was of a high ability.

Playground duties amounted to less than ten minutes each day. The time spent on duty was kept to a minimum in each school by having only one teacher, not two, on duty each breaktime. The small number of pupils further meant that children of all ages shared a playground, rather than, as would be the case in a larger school, the infant and junior age children each having their own playtime and therefore there was only the need for one teacher to be on duty. Further, Pear Tree School did not have an afternoon break for the Key Stage Two children and so their teachers consequently were excluded from all afternoon duties. Time spent in relaxation during breaks and lunchtimes amounted to less than forty minutes each day on average (36.61%).

Relaxation Outside Breaktimes

For the part-time teachers, time spent relaxing outside time-tabled breaks was minimal, amounting to between 1.3 and 3.3 minutes per day on average, and occurred exclusively in the periods before and after the school day. Mike, the full-time teacher, spent proportionately larger periods of time relaxing outside break times and these periods encroached into both non-contact and lesson time, averaging to 8.5 minutes per day.

Omitted from the calculation of the amount of time which teachers spent in relaxation are those periods during lessons coded as 'Inert Supervision'. Such occasions, for example, when teachers sat at their desks monitoring the class working, yet neither being disturbed by children nor intervening in their work could be seen as a further form of relaxation. even though they occurred during lesson times. Many teachers would probably argue that these are often periods when valuable assessments of how the pupils work are being made. Mike talked about such times during his interview and it seemed that he, at least, believed such periods were breaks and were necessary: "Sometimes you just have to sit back and have a break from it all - give the children work which allows you to have a break". Over the 221 hours of observation during lesson times, just over six hours were coded in this way: less than eight minutes each day. It is perhaps noteworthy that the greater the teaching load of each teacher, the more time they spent in this way; a possible explanation for this being that the stress of a full teaching load demands more time to be spent 'off-task'.

Table A15: All Lessons (data derived from all observations of all class teachers) expressed as both time observed in hours and the proportion of all observed lessons

ACTIVITY	TIME (HOURS)	PROPORTION OF ALL LESSONS (%)
1: Register	6.48	2.93
2: Transition	10.15	4.59
WHOLE CLASS		
3: Instruction	10.89	4.92
4: Teaching	10.44	4.72
5: Story	6.15	2.78
6: Praise	4.03	1.82
7: Test	3.67	1.66
8: Class Enquiry	19.42	8.78
9: One way Class Enquiry	1.86	0.84
	}56.46	}25.52
GROUP		
10: Instruction	6.82	3.08
11: Teaching	11.95	5.40
12: Monitoring	8.61	3.89
	}27.38	}12.37
INDIVIDUAL		
13: Single Child	41.48	18.76
14: Reader	16.43	7.43
15: Special Needs	4.18	1.89
16: Mobile Monitoring	14.52	6.57
	}76.61	}34.65
17: Routine	11.68	5.28
18: Inert Supervision	6.87	3.11
19: Settling Time	5.21	2.36
20: Educational Assistant Liaison	0.28	0.13
21: Co-ordinator Role	0.97	0.44
22: Staff Liaison	1.18	0.53
23: Parental Liaison	0.58	0.26
24: Other Liaison	1.24	0.56
25: Preparation	12.63	5.71
26: Staff Meeting	0.17	0.08
27: Relaxation	1.18	0.53
29: Supervising Children	2.06	0.93
TOTAL	221.13	99.98

Lesson Time

More than two hundred (221.13) hours of lessons were observed, data are summarised in Table A15. More than 72 per cent of these observations (72.54%) were spent actively teaching, be it working with a whole class, a group or individual children. Broadly speaking, for every one minute spent teaching a group, two were spent teaching the whole class and three minutes were spent teaching pupils individually. A further twenty per cent (19.20%) was spent dealing with the pupils, for example, waiting for them to settle before beginning a lesson, taking the register, sitting at the teacher's desk watching the class work or going through the routines of handing out books or tidying away.

The remaining observations during lessons were largely unconnected with the lesson in hand and certainly unconnected with the pupils. These activities occupied, on average, just over twenty minutes of lesson time a day (21.54 minutes). Preparation was frequently observed during lessons. It took a slightly different form to that when staff were free from the class as they were restricted to activities in the classroom. Included here were writing on the board for the following lesson, marking books: activities which could easily be left if children required attention.

Only a small amount of time was observed to be spent in relaxation during lessons, less than two minutes on average each day. This comprised periods when the staff at Pear Tree School were brought a cup of tea in the afternoon and took a brief break from their work to chat to the member of staff who had brought the drink to the classroom. Teachers did however break from their work in a different way during lessons. The code of 'Inert Supervision' considered periods when teachers were observed to sit at their desks whilst the class worked. Often they would lean back in their chairs and watch the class as they worked. On average eight minutes a day were spent in this way and they were seen to be a break from work, although in the description above they have been interpreted as having been concerned with the pupils: an informal form of assessment, examining the way in which pupils worked.

Table A16: Audience Categories as a percentage of teacher-pupil interaction (data derived from Systematic Observation) compared to the totals from the 1976 ORACLE project and its follow-up 1996 ORACLE (source: Galton, 1998, p.7, Galton et al, 1999, p.57)

AUDIENCE CATEGORY	ORACLE 1976	PRISMS (juniors)	INCSS (juniors)	ORACLE 1996	Systematic Observation of Key Stage Two teachers
INDIVIDUAL	71.2	58	59	48	43.60
GROUP	9.8	16	18	16	15.76
CLASS	19.0	26	23	35	40.64
TOTAL	100.0	100	100	100	100.00

Table A17: Teacher Activity (data derived from systematic observation) compared to the totals from the 1976 ORACLE project and its follow-up 1996 ORACLE (source: Galton, 1998, p.9)

TEACHER ACTIVITY	ORACLE 1976	ORACLE 1996	Systematic Observation of Key Stage Two teachers
Questioning	12.00	16.20	22.67
Making Statements	44.70	59.20	38.37
Silent Interaction	22.30	12.80	23.55
No Interaction	21.00	12.40	15.41
TOTAL	100.00	100.60	100.00

Systematic Observation Data

Data from the systematic observations have been used in two ways. Firstly, in comparison with data from other studies using the same schedule in order to derive some feeling of how 'typical' observations were and secondly, to compare with the data derived from the participant observation as a means of triangulation.

The aggregated data of all systematic observation of the class teachers represents ten hours of observation of the core subjects: five hours English, four hours Mathematics and an hour Science. Table A16 summarises the proportions of time for which the teachers as a group were interacting with either the whole class, a group or an individual and provides comparative figures derived from both the 1976 and 1996 ORACLE projects (Galton and Simon, 1980, Galton, 1999) as well as for the junior classes of the PRISMS and INCSS projects.

Drawing upon the studies listed in Table A16, as well as those of Croll and Moses, (1985), Mortimore *et al* (1988) and Pollard *et al* (1994), Galton argued that over time there had been an increase in the amount of whole class and group interaction and corresponding demise of individual interactions. When ranked, the categories fall into the same order as those of Galton (1998). However, in this study, the periods of systematic observation of all teachers produced higher proportions of class interactions than the 1996 - 1997 data and lower proportions of individual interactions. Further eighty five per cent (85.11%) of observations were coded to be either individual, group or class, the remainder were made up of silent interaction or no interactions. ORACLE generated a figure for interactions of 78.4% and from the 1996 - 1997 data, a figure of 89%, with the rise being attributed to a decrease in the proportion of time spent monitoring, housekeeping and marking without feedback (Galton, 1998, p.8).

The small numbers involved in this study makes it difficult to make direct comparisons with previous studies. This is particularly true as the differences between individual teachers and, indeed, between each of the observed lessons, were so great.

If one compares these figures to those for observed lessons, some similarities become apparent. Systematic observations showed that the ratio of individual : group : whole class interactions were 3:1:2.5 and together these amounted to more than eighty five per cent (85.11%) of all interactions. Coding of the field notes from lessons indicated that, broadly speaking the individual : group : whole class ratio was 3:1:2. This suggests internal reliability. Together, these three broad categories accounted for nearly three quarters of all lessons (71.92%). The figures derived from the field notes however, exclude any interactions which the teachers would have had with pupils during periods coded as 'Register', 'Transition', 'Routine', 'Settling time' or 'Supervising children' which together represented a further sixteen per cent (16.58%) of lessons.

When broken down by type of teacher talk, as summarised in Table A17, the teachers in this study spent a far greater proportion of their interactions using questions and in silent and no interaction than the 1996 ORACLE data, with a correspondingly lower proportion of statements being recorded. The small sample as well as the contribution of Linda's Science lesson which was dominated by questioning will have affected these figures.

Summary: the observed school day

The teachers' time during the school day but outside lessons, was dominated by aspects of preparation, especially in the periods of non-contact time and before and after school. Preparation also encroached into their teaching time. Despite the staff having multiple areas of curriculum responsibility, time spent on this aspect of their work was minimal and most usually involved the opening and subsequent disregarding of educational suppliers catalogues, a rather low-level element of what Webb and Vulliamy termed "Resource management" (Webb and Vulliamy, 1996, p.84) rather than being concerned with the other broad categories which Webb and Vulliamy identified: planning and policy-making, INSET and influencing the classroom practice of colleagues. As the ROTT entries had indicated, the observations confirmed that the teachers, rather than having an increased workload due to multiple curriculum responsibilities, spent very little school time on these duties.

The observational data identified other areas in which the teachers spent limited amounts of time given that they were employed in small and largely rural schools. Only a small amount of time was spent in liaison with both parents and members of the community. Indeed at these schools, the strong community links which small schools are traditionally believed to build up, seemed absent. Further, the notion of working 'beyond the bond' in small schools, that is spending unusually long hours on extra tasks and duties, was not apparent in the case study teachers. Working in a small school did not make such extra duties an intrinsic part of the work of these teachers and it was not a characteristic which distinguished them from teachers working in larger schools.

In terms of classroom organisation, the teachers as a group were observed to deal with individuals most frequently during lessons with the ratio of time spent teaching individuals, groups and the whole class being approximately 3:1:2. Analysis of the systematic observation schedules showed a teacher talk to be aimed either at the individual pupil or the whole class, but less so towards groups.

INDIVIDUAL TEACHERS

Mike Harris

Mike had joined the school in the same term that observations began in his classroom: Autumn 1996. He had completed an initial degree at art college in Art and Design, then worked in market gardening for eight years. This was with the family business and his had been a manual job in both the glasshouses and fields rather than office based. Following this, he had returned to college to complete a P.G.C.E. in Art and History. He had one year of teaching experience; following an initial one term contract at a small school, two further terms had been spent at another small school: both schools were local but in the neighbouring county.

Mike was the teacher in charge of Years 3 and 4 at Pear Tree School. At the beginning of the study there were 30 pupils in his class: 12 boys and 18 girls. This rose to 32 children by the period of systematic observation and teacher interview. The class composition is outlined in Table M0, with the figures in brackets indicating numbers at the end of the study

Of the children in his class, one was at Stage 3 in terms of Special Educational Needs, a further two were at Stage 2 and a further eight were at Stage 1 as identified in the May 1994 DFEE's Code of Practice. Mike had no additional help either in the form of special needs assistants or general classroom assistants in his classroom, however the child at Stage 3 was removed for extra tuition with Jean Martin during two assemblies each week. All pupils in his class had English as their first language.

Mike's classroom was one of two in the main school building. It had a high sloping ceiling and large windows along one wall, which looked out onto the Reception classroom and playground and beyond onto open farmland. The room itself was used as the main route through the school to the temporary classrooms and so the secretary, headteacher and visitors frequently walked through.

Table M0: Mike Harris, Class Composition

	YEAR 3	YEAR 4	TOTAL
BOYS	6 (7)	6 (5)	12 (12)
GIRLS	9 (11)	9 (9)	20 (18)
TOTAL	15 (18)	15 (14)	32 (30)

Mike altered the layout of the classroom several times during the period of research, although the basic format was to have a central block of tables for display and storage of artwork and models, with storage space below for art, craft and technology materials and children's work waiting to be marked. Mathematics equipment was kept on a trolley at the front of the classroom and a corner was set aside for reading books. Mike's desk was near the front of the class and the desks closest to it were occupied by a group of Year Three boys who had reading and concentration difficulties. There was a stock cupboard at the front of the class and the class computer was located towards the back of the room. The proximity of the library area was valued by Mike as he often used this as an overspill during Art and Design Technology lessons when space was at a premium.

Mike was responsible for teaching his class the whole curriculum with the exception of music which was taught by George. During these periods, Mike taught the Year 5 and 6 children outdoor games. At a school level, Mike held responsibility for Design Technology and Information Technology. During the period of the research, the school updated its computers and Mike had key responsibility for the selection and installation of these and the accompanying software.

Mike was observed working over a period of twenty days. Due to outside commitments of the observer during the Autumn Term of 1996, these comprised five days observation on each of Monday, Tuesday, Thursday and Friday, but no observations on a Wednesday.

Examination of the ROTT indicated that there were no 'unusual' events in the week in which it was completed. Mike taught for the full week, attending no courses; there were no trips or events such as swimming galas or parents' evenings.

The Working Week

The data concerning Mike's working week are summarised in Table M1. Mike recorded a working week which totalled 52.85 hours: very close to the average for all teachers in the study by

Table M1: Mike's Working Week (data derived from the Record of Teacher Time) indicating the total time recorded on each activity in hours and the proportion of such entries which that represented

CODE	ACTIVITY	TOTAL TIME (HOURS)	PROPORTION OF ALL ROTT ENTRIES (%)
multiple entry	TEACHING Mixed subjects	2.35	4.45
TE	English, Language, Reading . .	5.40	10.22
TM	Mathematics and Number	1.65	3.12
TS	Science	2.20	4.16
TH	History	1.25	2.37
TD	Design / Technology	1.15	2.18
TC	Art/Craft	2.25	4.26
TP	P.E. / Movement	3.15	5.96
TO	Other	0.80	1.51
		}20.20	}38.23
PR	PREPARATION / MARKING Preparing and planning for learning	8.85	16.75
PM	Marking	3.50	6.62
PO	Organising resources and trips	0.80	1.51
		}13.15	}24.88
IS	IN-SERVICE TRAINING Staff meetings, informal consultation	0.80	1.51
IR	Reading of professional magazines . .	3.20	6.05
		}4.00	} 7.56
AP	ADMINISTRATION Discussion/consultation with parents	0.80	1.51
AD	Mounting displays	3.75	7.10
AS	Supervising children before . .	1.95	3.69
AL	Staff liaison outside school/K.S.	0.25	0.47
AB	Breaks - free of work	2.30	4.35
AF	Breaks - not free of work	1.90	3.60
///	Registration, moving children, . .	3.50	6.62
		}14.45	}27.34
OA	OTHER ACTIVITIES Other Activities	1.05	1.99
	TOTAL	52.85	99.99

Campbell and Neill (1994, p.50) of 52.6 hours and the School Teachers' Review Body (1996, Table A1) of 50.8 hours. Mike's total included nearly two hours of weekend work on the Sunday evening.

On four weekdays, Mike recorded work to start at between 8.00 and 8.30 a.m., on the fifth, he recorded his start time to be at 9.00 a.m.. He stayed on school premises each day until 5.00 p.m. or just after. No work was then recorded until between the hours of 8.00 to 10.00 p.m., probably reflecting the fact that he had a young family and so deferred work until they had gone to bed.

The greatest proportion of this time was coded as teaching: this amounted to 20.2 hours over the week: 38.23% of the total: a much greater amount of time than the mean of 18.3 hours recorded by the teachers in the study by Campbell and Neill (1994, p.52) but similar to the 20 hours and 39 per cent of all work recorded by teachers in the School Teachers' Review Body study (1996, Table A1). When the codes for registration and supervision are added to this total, Mike recorded being in contact with the class for 25.65 hours: this exceeded the twenty five hours which were time-tabled as contact time because Mike used the AS code largely to indicate times outside lessons. Thus, nearly half (48.5%) of his time working was spent in contact with pupils.

A total of 13.15 hours were spent over the week in aspects of preparation, representing nearly a quarter (24.88%) of his working week: planning took up some two thirds of this total. The preparation:teaching ratio was 0.65:1, indicating that Mike spent thirty nine minutes in preparation for every hour in teaching, rising to 0.81:1 if the reading of professional journals is included.

Aspects of professional development: staff meetings and the reading of professional literature, were recorded for a total of four hours, and therefore accounted for 7.56% of the entries. Mike recorded no courses or non-pupil days that week. A further 15.5 hours were recorded as being spent on activities concerned with administration: 27.34% of the total. Of this, display was the dominant activity in terms of time taken. Non-contact time which was free of work and attendance at the Act of Worship were not recorded. Other activities (code OA) represented 1.99% of entries on the Record of Teacher Time: 1.05 hours.

Table M2: Mike's School Week (data derived from the Record of Teacher Time) indicating the total time recorded on each activity in hours and the proportion of such entries which that represented

CODE	ACTIVITY	TOTAL TIME (HOURS)	PROPORTION OF ALL ROTT ENTRIES (%)
multiple entry	TEACHING Mixed subjects	2.35	6.57
TE	English, Language, Reading . .	5.40	15.10
TM	Mathematics and Number	1.65	4.62
TS	Science	2.20	6.15
TH	History	1.25	3.50
TD	Design / Technology	1.15	3.22
TC	Art/Craft	2.25	6.29
TP	P.E. / Movement	3.15	8.81
TO	Other	0.80	2.24
		}20.20	}56.50
PR	PREPARATION/MARKING Preparation and planning for learning	1.70	4.76
PM	Marking	1.15	3.22
PO	Organising resources and trips	0.45	1.26
		}3.30	}9.24
IS	IN-SERVICE TRAINING Staff meetings, informal consultation	0.55	1.54
AP	ADMINISTRATION Discussion/consultation with parents	0.80	2.24
AD	Mounting displays	0.85	2.38
AS	Supervising children before . .	1.95	5.45
AL	Liaison with teacher in other schl/KS	0.25	0.70
AB	Breaks - free of Work	2.20	6.15
AF	Breaks - not free of work	2.00	5.59
///	Registration, moving children, . .	3.40	9.51
		}11.45	}32.02
OA	OTHER ACTIVITY Other activities	0.25	0.70
	TOTAL	35.75	100.00

Work outside school hours

On the Record of Teacher Time, Mike recorded a total of 8.85 hours spent working at home and a further 9.5 hours working on the school premises outside the period of 8.30 to 3.30 . This gave a total of 17.35 hours of work over the week of recording which were outside the hours of 8.30 and 3.30. This time represented nearly a third (32.36%) of his total working week, with 16.5 per cent of his total working week being spent at home. During the interview with Mike, he calculated that on average he worked some fourteen hours each week outside school hours and that this was spent, in the main, planning and marking. He also acknowledged that recently he had spent much more time than usual on work as he had been writing policies.

Typically, Mike reported that he arrived at school between 8.00 and 8.15 a.m. each morning; this was confirmed in the time diary in which he logged the following times of starting work on the school premises: 8.00, 9.00, 8.00, 8.24, 8.09. He had a forty minute journey to school. On one occasion in the time diary he recorded having started work at 7.30 a.m. when he spent nine minutes at home collecting resources in preparation for the day's lessons.

The School Week

Table M2 presents Mike's school week, using data derived from the ROTT, that is entries from 8.30 a.m. to 3.45 p.m. from Monday to Friday. This analysis totals 35.75 hours from a possible 36.25 hours, reflecting the fact that on one occasion Mike arrived at school at 9.00 a.m., half an hour after observations began.

The Teaching Day

Mike was observed over twenty days for a total of 138.86 hours from a possible 145 hours. The difference of just over five hours is explained by the occasions when Mike either arrived at school after 8.30 a.m. or left before 3.45 p.m..

Table M3: Mike's time before and after the school day, from 8.30 - 9.00 a.m. and 3.15 - 3.45 p.m. (data derived from participant observation) indicating the total time observed on each activity in hours and the proportion of all such observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL TIME OBSERVED BEFORE AND AFTER SCHOOL (%)
21: Co-ordinator Role	0.87	5.78
22: Staff Liaison	0.67	4.45
23: Parental Liaison	1.15	7.64
25: Preparation	8.63	57.3
27: Relaxation	1.86	12.35
29: Supervising Children	1.48	9.83
30: Other	0.40	2.66
TOTAL	15.06	100.01

Table M4: Mike's non-contact time (data derived from participant observation) indicating the total time observed on each activity in hours and the proportion of all such observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVED NON-CONTACT TIME (%)
22: Staff Liaison	0.76	11.01
25: Preparation	5.27	
27: Relaxation	0.60	76.38
29: Supervising children	0.27	3.91
TOTAL	6.90	100.00

Observations Before and After School

Observations before and after school are summarised in Table M3. At 8.30 a.m. when observations began, it was usual to find Mike at this time already having begun work. Most frequently, this was work which was preparation for the morning's lessons in the form of writing worksheets and then photocopying them, undertaken in the staffroom. Generally, Mike was writing out the second or third sheet when the observer arrived and on these occasions he reported that he had been preparing the worksheets since his arrival. By 8.45, Mike had usually moved to his classroom with a cup of tea to organise exercise books for the morning's lessons or to write on the whiteboard in preparation for the day. Closer to the formal start to the school day, Mike usually spent some time in dealing with routine matters to do with the children in his class. A typical start to his working day is detailed in the extract from the observer's notes below:

TIME	TEACHER ACTIVITY
8.30	A. is in the staffroom. He prepares worksheets for the morning's English lesson, writing out questions using books from the reading scheme as the basis for the comprehension and then photocopies them.
8.45	A. goes to the classroom with the register and writes the following spellings on the whiteboard: <i>1 2 3</i> <i>skip wisp due</i> <i>skin clasp cue</i> <i>skim pant blue</i> <i>skill plant glue</i> <i>skate mint hue</i> <i>ski tent squeak</i> <i>skid stunt squeeze</i> <i>skull hunt squelch</i> <i>sky front true</i> <i>shirt sent quest</i> He puts a slip of paper on each child's desk.
8.52	A. sees a child who asks if she can bring a grass snake which she has found to school the following day.

Non-Contact Time

Non-contact time (summarised in Table M4) existed only during assembly times when staff were not required to attend and coded data also included one occasion during the period of participant observation, when Mike was waiting to lock up the school as the children were going to

Table M5: Mike's break and lunch times (data derived from participant observation) indicating the total time observed on each activity in hours and the proportion of all such observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVED BREAKTIMES (%)
20: Settling children	0.17	0.71
21: Co-ordinator Role	2.57	10.89
22: Staff Liaison	1.22	5.16
23: Parental Liaison	0.08	0.35
25: Preparation	5.6	23.76
26: Staff Meeting	0.53	2.26
27: Relaxation	8.23	34.94
28: Duty	1.42	6.01
29: Supervision	3.72	15.77
30: Other	0.03	0.14
TOTAL	23.57	99.99

the local church for Harvest Festival. Assemblies took place immediately after morning registration on Mondays and Fridays, and in the afternoon following registration on Thursdays.

Mike's entries on the ROTT showed that these periods amounted to a total of 90 minutes over the week or an average of eighteen minutes each day. This was similar to the 6.9 hours of non-contact time over the twenty days of observations: an average of 20.9 minutes each day.

Both sources of data indicate that these periods gave Mike opportunity to prepare for lessons, usually allowing him time to set out resources. It also gave opportunity to talk with other staff, usually Jean, the special needs teacher, about pupils in his class.

Breaktimes and Lunchtimes

Break and lunchtimes (Table M5) accounted for more than twenty three (23.57) hours of observations, with less than half an hour, on average, each school day being taken as a period of relaxation. Once again, preparation and marking were the most often observed work activity.

Time spent on playground duty is under-represented in this analysis, as Mike did one of his duties on Wednesdays for which no observations were made. The high proportion of time spent supervising children (15.77% of all break and lunchtimes) was caused for two reasons. Firstly, the term of observations was one of many rainy days, for which Mike stayed with his class during the morning break. Secondly, the class often would not settle to work readily and Mike added this 'lost' lesson time to the end of sessions, for either the whole class or selected children who had not completed sufficient work.

Mike's time spent in a co-ordinator role was also high (2.57 hours). Routinely, he checked post, however, much of this time was concerned with checking the delivery of and unwrapping of a batch of computers which the school had purchased.

Table M6: Mike's lesson time (data derived from participant observation) indicating the total time observed on each activity in hours and the proportion of all such observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVED LESSON TIME (%)
1: Registration	3.22	3.44
2: Transition	6.77	7.23
WHOLE CLASS		
3: Instruction	5.12	5.47
4: Teaching	3.80	4.06
5: Story	3.70	3.95
6: Praise	1.48	1.58
7: Test	1.52	1.62
8: Class Enquiry	5.08	5.42
9: One Way Class Enquiry	0.63	0.67
	}21.33	}22.77
GROUP		
10: Instruction	2.95	3.15
11: Teaching	3.73	3.98
12: Monitoring	1.80	1.92
	}8.48	}9.05
INDIVIDUAL		
13: Single Child	14.48	15.46
14: Reader	12.25	13.08
15: Special Needs	1.80	1.92
16: Mobile Monitoring	8.03	8.57
	}36.56	}39.03
17: Routine	4.33	4.62
18: Inert Supervision	2.98	3.18
19: Settling Time	3.17	3.38
21: Co-ordinator Role	0.30	0.32
22: Staff Liaison	0.10	0.11
23: Parental Liaison	0.48	0.51
25: Preparation	4.17	4.45
27: Relaxation	0.38	0.41
29: Supervising children	0.96	1.02
30: Other	0.43	0.46
TOTAL	93.66	99.98

Lesson Time

Lessons were time-tabled to occur from 9.00 to 10.30 then, following a break, from 10.45 to 12.00, with the exception of the morning when the class went swimming, on which playtime was delayed until 10.45. After lunch, afternoon lessons ran from 1.00 to 3.15 without a break. School assemblies and registration periods were included within these times. Lunch was always followed by afternoon registration and on one day assembly followed this. Mike was observed for a total of 100 hours of lessons, less that time given to assembly were time-tabled. Observations of lessons and assembly time totalled 100.56 hours, indicating that the school day over ran by just over a minute each day. Of this, assemblies accounted for 6.37 hours and other non-contact to 0.53 hours, leaving 93.66 hours of observed lesson time, detailed in Table M6.

Mike's time was predominantly organised with working with and overseeing individual children, this taking up nearly half of the time available for teaching the class. Whole class teaching was used to a significant extent, accounting for over a fifth of his teaching and for nearly thirty per cent of his teaching if class enquiry is aggregated with this. It is notable that less time was spent by Mike with groups in the class than was spent on class management and supervision.

Mike recorded a curriculum complexity ratio of 1.11:1. ROTT entries reflected his concentration on teaching the core curriculum. English was recorded to be taught as a separate subject for 5.4 hours, Mathematics a further 1.65 hours and Science 2.2 hours: 9.25 hours from a total of 20.2. On the two occasions when Mike recorded teaching more than one subject at once the lessons involved a combination of only English and Mathematics. Therefore, for nearly sixty per cent of teaching time Mike was concerned with aspects of the basics of English and Mathematics; when Science is included in the 'core' curriculum, this figure rose to nearly seventy per cent of teaching time. Mike was involved in teaching the remaining areas of the curriculum for 8.6 hours over the week of which, more than a third was taken up with the teaching of P.E..

Over all single subject lessons, Mike was observed to have spent an average of 71.68 per cent of his time involved with whole class, group and individual teaching at a ratio of 2.6: 1: 4.3. In his

Table M7: Mike Harris, Proportion of observed times spent on activities in English lessons (26.67 hours); Mathematics lessons (12.03 hours); Geography lessons (10.6 hours); Art/CDT lessons (10.57 hours); PE lessons (9.33 hours) and Mixed Subjects (15.05 hours)

ACTIVITY	ENG	MATHS	GEOG	ART/ CDT	P.E.	MIXED
1. Register	0.68	4.70	0.94	0.31	0.00	0.00
2. Transition	1.19	0.83	0.31	1.89	51.61	3.43
WHOLE CLASS						
3. Instruction	3.75	6.79	11.48	3.47	4.82	5.09
4. Teaching	0.19	1.25	7.39	15.93	3.04	2.55
5. Story	13.69	0.00	0.00	0.00	0.00	2.33
6. Praise	1.81	1.39	0.00	3.94	0.00	1.99
7. Test	5.69	0.00	0.00	0.00	0.00	0.00
8. Class Enquiry	3.06	7.06	14.47	6.94	0.36	8.31
9. One Way Class Enquiry	0.56 }28.75	0.00 }16.49	3.62 }36.96	0.47 }30.75	0.00 }8.22	0.33 }20.60
GROUP						
10. Instruction	6.69	0.00	1.57	2.37	0.89	4.43
11. Teaching	1.88	4.85	0.00	1.58	13.39	8.19
12. Monitoring	0.18 }8.75	4.16 }9.01	0.00 }1.57	0.00 }3.95	11.43 }25.71	1.22 }13.84
INDIVIDUAL						
13. Single Child	8.13	30.06	15.72	45.27	3.04	13.51
14. Reader	26.75	15.93	11.01	0.00	0.00	12.96
15. Special Needs	2.25	0.00	2.67	0.00	0.00	6.09
16. Mobile Monitoring	7.56 }44.69	5.96 }51.95	15.09 }44.49	5.99 }51.26	5.18 }8.22	17.72 }50.28
17. Routine	6.56	3.32	3.62	7.41	0.54	2.33
18. Inert Supervision	1.56	6.09	9.12	0.00	3.93	1.44
19. Settling Time	0.00	0.00	0.00	0.00	0.00	3.10
21. Co-ordinator Role	1.38	0.28	1.26	1.42	1.43	0.78
22. Staff Liaison	0.00	0.69	0.00	0.00	0.00	0.00
23. Parental Liaison	0.50	0.97	0.00	0.00	0.00	0.00
25. Preparation	5.13	5.68	1.73	3.00	0.36	2.99
29. Supervising Children	0.63	0.00	0.00	0.00	0.00	1.00
30. Other	0.18	0.00	0.00	0.00	0.00	0.20
TOTAL	100.00	100.01	100.00	99.99	100.02	99.81

'specialist' subjects of Art and CDT the proportion of time spent engaged in these broad categories was higher than in any other subject: 85.96 per cent of all observations.

When the proportions of lesson time spent either in giving the class instructions, actively teaching them or monitoring their working were considered, Mike was found to have spent the highest proportion of time teaching during Art/CDT lessons: accounting for 70.19 per cent of all such lessons.

Table M7 details the percentage of time spent by Mike on each of the coded activities across the five curriculum areas which were regularly observed as well as in Mixed subject teaching. Mike talked about his teaching in the interview. He felt that he was able to cover the whole of the National Curriculum and attributed this to the amount of time which he spent researching the subjects, but expressed some doubt about his ability to always make the lessons educationally worthwhile: "The subject knowledge is not the problem, it's organising it so it's effective really: so that your teaching really works."

Mike saw himself as having no single favoured teaching style and explained that he chose the means of teaching which he saw as being the most suitable for the subject; he did however explain that he would often begin or end a lesson with 'whole class teaching' which he further defined as 'chalk and talk'. In his opinion, Art, Design Technology and Science often required the class to be divided into 'integrated groups' which he defined as groups working on activities on a rotational basis, completing the whole cycle of activities over a period of several lessons; this, he argued, made planning and the use of resources more manageable. He saw Mathematics in his class as being a form of groupwork, in the sense that there were several children working on the same type of activity. He talked about the way in which he divided the class: "Sometimes they work in pairs, it depends upon what they are doing. If they are making something and it is something small, then they will do it on their own, obviously, and if it is more challenging they will do it in pairs; or, if it is something that requires a bit of research they might do it as a group: Art same as Science really, they might work in groups for that. And individuals, depends whether they need it."

The text below details Mike's lessons by curriculum area, in subjects which were each observed for more than nine hours.

English

TIME	TEACHER ACTIVITY
9.40	Children return to the class. Mike stands at board and asks for quiet
9.42	Mike introduces the lesson by pointing out the need for punctuation by reading an extract from <i>The Wind in the Willows</i> , firstly without adding punctuation and then reading it with pauses, etc..
9.45	Milk monitors from class 4 come into the class to take the milk register for the day (6). He helps them to complete this
9.46	Mike continues to introduce the need for punctuation, especially full stops and capital letters.
9.48	Mike tells the class what they are to do this lesson. Y. 3 have a worksheet of sentences which require re-writing on paper with capital letters at the start and full stops at the end. Y. 4 have a similar worksheet which has proper nouns which additionally need capital letters. Each year group then has a handwriting sheet to complete. For Year 3 they are to copy words (joined script) below those on the sheet and then to copy the lines of a poem below where it appears on the sheet. Y. 4 have to copy the same poem but onto separate paper and to complete a further poem
9.50	Mike gives out the sheets
9.53	Mike goes over the details of presenting work - date, name, title. The class start work
9.55	Mike returns to his desk and hears two children read, filing in their reading records as they do so.
10.06	Mike walks around the class checking that the class are working and that everyone has made a satisfactory start to their work - that it is neat and there has been a reasonable amount completed
10.08	Mike hears a child read and updates their records
10.13	Mike quietens the class and reads them the poems on the handwriting sheets. He reminds Y. 4 children that they are to copy all of the joins and set the work out exactly as it is on the sheet
10.16	Mike deals with two queries about changing reading books and fills in the reading record sheets for those two children. They had told him at the start of the school day that they needed some help.
10.17	Mike sits at his desk and hears a further child read
10.20	Mike walks around the class monitoring the children's progress
10.28	Mike tells the class to finish the work which they are on. As they finish they sit quietly with their arms folded and Mike dismisses them

Mike's English lessons changed through the period of observation, as he came to know both the abilities of the pupils in his class and the resources available within the school. Most of his English lessons were concerned with grammar and comprehension. The pupils were set the task of completing worksheets. Mike began with two groups organised by year group. In comprehension

lessons, by the end of the period of observation in his class, this had increased to four groups and later developed to six groups. In comprehension lessons, some of the worksheets, those provided for the higher ability groups were photocopied from published schemes and followed a progression. Those for the middle and lower ability groups were handwritten and individually adapted for use with books in the school reading scheme. Mike formed a third group for teaching grammar. Grammar lessons also relied upon worksheets as a resource. These were all handwritten and created by Mike for each lesson. The reliance on worksheets for some aspects of English helps to explain the distribution of Mike's time during these lessons. There had to be a high input of instructions to each group at the start of each lesson and, once the class were working, Mike was able to hear pupils read and to maintain reading records.

The child at level three on the SEN register was given particular attention during these lessons. Mike would set time aside in order to hear him read and to work with him on an individually prepared worksheet. Although this was consciously a time set aside to work with this child, over the time spent teaching English as a separate subject, nearly twenty seven hours (26.67), it amounted to only thirty six minutes of observations. It must be noted that Mike was the only teacher who regularly 'targeted' a specific child with special needs in this way.

The extract from the field notes above is taken from a lesson observed very early in the study, when Mike himself was new to the school. It indicates the way in which he structured the lesson in order to free himself to hear children read.

Mathematics

More than half (51.95%) of observed Mathematics lessons were spent dealing with individuals, and further, nearly a third of lessons were spent by Mike dealing with individual children (30.06%). As might be expected from this, Mike relied heavily upon the published Mathematics scheme with pupils working individually through the books and visiting Mike at his desk when they were in need of help.

A high proportion of Mike's time was spent hearing readers (15.93%): this happened first thing after registration each morning. Mike set the class algorithms written on the blackboard which became increasingly difficult as one progressed through them. Whilst pupils worked on these, Mike called individuals to read to him or sat at his desk watching pupils work, coded as Inert Supervision (6.09%).

Geography

TIME	TEACHER ACTIVITY																
1.28	Mike recaps on the weather and clouds work which the class have done and introduces the thermometer and how it works																
1.29	Mike gives out a worksheet showing a thermometer and different objects, he tells the children whilst he does so that he tells the class the temperature of each object and asks them to join the item with a line to the drawing of the thermometer on the sheet																
1.30	Mike sends two boys out to record the temperature in three places outside. Whilst they do this, he supervises the class doing the work on the sheet from his desk																
1.40	The class on Mike's instruction start to colour the pictures on the sheet. Mike supervises them as they do so by walking around the class to make sure that they are working																
1.50	Mike stops the class and tells them about what the two boys (now returned to the class) have done. He writes the following on the board as he talks: <div style="text-align: center;"> <table> <thead> <tr> <th></th> <th><i>Class 3</i></th> <th><i>Class 4</i></th> <th><i>Class 2</i></th> </tr> </thead> <tbody> <tr> <td><i>10.30</i></td> <td><i>15'</i></td> <td><i>12'</i></td> <td><i>12'</i></td> </tr> <tr> <td><i>11.30</i></td> <td><i>20'</i></td> <td><i>14'</i></td> <td><i>14'</i></td> </tr> <tr> <td><i>1.30</i></td> <td><i>19'</i></td> <td><i>13'</i></td> <td><i>13'</i></td> </tr> </tbody> </table> <p><i>Temperatures around the School</i> <i>Class 3 facing east</i> <i>Class 2 in shade</i> <i>Class 4 not in sun</i></p> </div>		<i>Class 3</i>	<i>Class 4</i>	<i>Class 2</i>	<i>10.30</i>	<i>15'</i>	<i>12'</i>	<i>12'</i>	<i>11.30</i>	<i>20'</i>	<i>14'</i>	<i>14'</i>	<i>1.30</i>	<i>19'</i>	<i>13'</i>	<i>13'</i>
	<i>Class 3</i>	<i>Class 4</i>	<i>Class 2</i>														
<i>10.30</i>	<i>15'</i>	<i>12'</i>	<i>12'</i>														
<i>11.30</i>	<i>20'</i>	<i>14'</i>	<i>14'</i>														
<i>1.30</i>	<i>19'</i>	<i>13'</i>	<i>13'</i>														
1.53	The children answer questions and put forward ideas as to why the temperatures vary, generating the final comments above. The class discuss shelter, the sun and aspect and the fact that the temperatures rose from the morning																
2.07	Mike tells the class that when they have finished colouring the sheet, they are to write up the experiment on the back of the worksheet. They are to draw a diagram, put the title and write what the class found, writing in full sentences.																
2.10	Mike supervises the children, working from his desk, casting his eye in particular over the Year Three boys in front of him. He reminds those who are not working that they will have to finish the work tomorrow lunchtime if they do not finish in this lesson																
2.25	Mike tells the class to pack away and wait quietly for George. Mike takes his cup of tea, which Jean has brought in, to class 4 where he supervises the class changing for Games																

Mike's Geography lessons were characterised by a high proportion of time spent in teaching the whole class: more than a third of all time in these lessons (36.96%). The extract above is typical of observations. Mike led the class through the activities in question, stopping frequently in order to check that all pupils were keeping up and then moving on to the next stage. In this way he ensured that pupils stayed together in terms of completing work and this in turn meant that there was little differentiation.

Comparison of ROTT Data and Observational Data

The means of calculating the figures in Table M8 are detailed in Appendix H. Despite observations not reflecting a balance of days teaching, there was some degree of consistency between the proportion of the school day which Mike recorded himself to spend teaching both individual and mixed subjects, and the proportion of all observed time over which the pupils in his class were observed to be working on individual and mixed subjects. The most notable difference occurs in the two figures calculated for R.E. which was a subject time-tabled for the day of the week which the observer was absent for throughout the period in Mike's class.

From a comparison of the ROTT and observational data (Table M9) some degree of agreement is displayed. The most easily compared and least subjective figures are those concerning time spent teaching: 56.5 per cent of the total on the ROTT and 55.39 per cent of observations. Greatest disparity occurs between the data regarding time spent on aspects of preparation. There was a discrepancy of nearly eight per cent (7.8%) between the proportion of time Mike recorded in preparation and that which was observed. This may be explained by the fact that the proportion of time recorded on the ROTT to be 'Breaks - not free of work' was more than four and a half per cent (4.57%) more than the proportion of time observed as 'Duty'; when recording, it Mike used this general coding rather than the more precise codes which would have reflected time spent during breaks to be engaged in preparation. Further, Mike was frequently observed to prepare for future lessons or to mark work during lesson time: the nature of the ROTT meant that blocks of time were coded as teaching and did not allow for such details to be easily included.

Table M8: Proportion of Mike's time spent teaching different curriculum areas:

Comparison of Observational and ROTT data

SUBJECT	PROPORTION OF ALL LESSONS OBSERVED	PROPORTION OF TEACHING ENTRIES ON ROTT
SINGLE SUBJECT TEACHING		
English	19.21	15.10
Mathematics	8.66	4.62
Geography	7.63	6.15
History	6.72	3.50
Design Technology	7.61	6.29
R.E.	0.00	3.22
P.E.	9.28	8.81
Other	2.10	2.24
	}61.21	}49.93
MIXED SUBJECT TEACHING	10.84	6.57

Table M9: Proportion of Mike's time spent on Teaching and Non-Teaching Activities: Comparison of Observational and ROTT data

ROTT ENTRIES	% OF ALL ROTT ENTRIES	OBSERVED ACTIVITIES	% OF ALL OBSRVNS
Teaching	56.50	3-19: Teaching	55.39
Preparation	9.24	25: Preparation and marking	17.04
Staff meetings, informal Staff liaison outside school / KS	1.54 0.70 }2.24	26: Staff meetings 22: Staff Liaison	0.38 1.98 } 2.36
Display	2.38		
		21: Co-ordinator role	2.52
Discussion with Parents	2.24	23: Parental Liaison	1.24
Supervising children before . . .	5.45	29: Supervising children	4.44
Registration, moving . . .	9.51	1: Registration 2: Transition	2.32 4.87 } 7.19
Breaks - free of work	6.15	27: Relaxation	7.97
Breaks - not free of work	5.59	28: Playground duty	1.02
Other activities	0.70	30: Other	0.82
TOTAL	100.00	TOTAL	99.99

Summary: the work of Mike Harris

Previous studies of teachers' work have focused either wholly (Campbell and Neil, 1994) or largely (School Teachers' Review Body, 1996) upon full-time teachers. As the only teacher in the present study with a full-time teaching contract, data concerning Mike can be most easily compared to those of previous studies. In almost all senses, both the total amount of hours worked and the hours spent on each broad category of work, matched that of teachers studied previously.

There was no evidence that the small school factor influenced his working life. The mixed age groups in his class did not appear to significantly increase his time spent in preparation and marking and although he held multiple areas of curriculum responsibility this did not increase his workload beyond that of teachers studied previously. Evidence suggested that his home life had an influence upon the times at which he worked and further he did much of his work on the school premises, particularly in the mornings when he prepared worksheets for the day.

Mike's spent high proportions of time working with individuals. He invested time in hearing pupils read individually whilst the rest of the class worked largely independently. Group teaching was rare and indeed was most common in P.E., when the class divided between different teachers. In other subjects it was most usually associated with the issuing of instructions to groups working on differentiated worksheets within the class. Whole class teaching was most common when Mike was teaching his specialist subject of Art and C.D.T. and during the observed Geography lessons which were concerned with his previous work in farming. Mike's lessons were characterised by high proportions of time spent in inert supervision in all subjects. This was a feature of the other teachers' work which was restricted almost exclusively to periods when the class were watching the television or listening to an outside speaker. These periods were described by Mike in the interviews (see page 115 for further details) as being necessary breaks from work.

Jean Martin

Jean had taught for a total of 11 years, of which 4 had been at Pear Tree School, firstly, as a part-time teacher responsible for the junior class and then for the upper junior class when the school expanded. Her initial training had focused on the teaching of children with special needs and Physical Education.

Jean's first appointment was in a middle school in the south-east of England where she had a registration class of ten year olds but taught English and Mathematics throughout the ten to thirteen age range to children with special educational needs. In her next school, she was responsible for a class of nine and ten year olds to whom she taught most subjects as well having to teach Mathematics, English and R.E. throughout the school: again she taught these subjects to children with special needs. Jean then moved to Hong Kong and taught a class of Year Six children in a junior school, before returning to her former school for a term where she taught Music. Jean then broke from teaching to have a family; she returned to the profession through working on a voluntary basis in her daughter's school, teaching children with special needs. Jean formally returned to work when she gained a position at Pear Tree School.

Jean taught the Year 5 and 6 class at Pear Tree School and had a 0.4 teaching responsibility. She taught the class all aspects of History, Geography and R.E.. She had partial responsibility for teaching the class I.T., Mathematics, Art, Technology and English. She liaised with Linda regarding the teaching of English, but remained independent from Arthur in the teaching of Mathematics.

The class had 31 pupils during the study, comprising eighteen Year 5 and thirteen Year 6 pupils. The class composition is outlined in Table J0. Of the children in the class, two were at Stage 3 as identified in the May 1994 DFEE's Code of Practice, a further six were at Stage 1. The pupils at Stage 3 were categorised as having specific learning (dyslexia) difficulties and emotional and behavioural difficulties respectively. All pupils in the class had English as their first language.

Table J0: Jean Martin, Class Composition

YEAR GROUP	BOYS	GIRLS	TOTAL
YEAR 5	10	8	18
YEAR 6	6	7	13
TOTAL	16	15	31

At school level, Jean was responsible for Mathematics and Geography and was also Special Needs co-ordinator. As part of her job as SENCO, she worked with a Year Three child developing his reading skills during assemblies: a time which all other staff had free to organise as they wished. During the period of research Jean was involved in replacing the school Mathematics scheme and as such organised representatives from publishing companies to visit the school and discuss alternatives with her, before consulting with the head teacher and staff.

Jean taught in the temporary classroom located beyond the main school buildings. The class had no water supply, however, children were able to travel to the main building, either to paint in the library area in small groups, or to collect water. A mobile set of coat pegs and storage for bags was sited near to the main door, although it was often wheeled to one side if children needed the floorspace to work. Display boards covered the upper part of the walls at each end of the unit, with a computer set below. One of the computers had a printer attached. The teachers desk was at the far end of the room, and the neighbouring cupboard contained some stationery supplies. A filing cabinet held all of Jean's SEN records and shelves held a set of texts for History as well as a set of dictionaries. A free-standing blackboard part blocked the far door of the classroom. All of Jean's lessons were conducted in this classroom. During assemblies, she worked with the Level 3 SEN child from Mike's class in the school library.

During the week in which the ROTT schedule was completed, Jean recorded teaching for half of the week. This was more than her 0.4 contractual responsibility, however, it was not unusual for Jean and Linda to rearrange their teaching days between themselves according to events at home, and when asked Jean said that she had arranged this exchange privately with Linda and had taught for only 0.3 of the preceding week. No 'unusual' events in the form of Parents' Evenings were recorded during the week of the ROTT.

Table J1: Jean's Working Week (data derived from the Record of Teacher Time)

indicating the total time recorded on each activity in hours
and the proportion of all such entries which that represented

CODE	ACTIVITY	TOTAL TIME RECORDED (HOURS)	PROPORTION OF ALL ROTT ENTRIES (%)
multiple entry	TEACHING Mixed subjects	3.40	9.20
TE	English, Language, Reading, . .	0.85	2.30
TM	Mathematics and Number	2.40	6.50
TH	History	1.60	4.33
TG	Geography	1.50	4.06
TP	P.E. / Movement	0.55	1.49
TO	Other	1.25	3.38
		}11.55	}31.26
PR	PREPARATION / MARKING Preparing and planning for learning .	16.20	43.84
PM	Marking	3.00	8.12
PO	Organising resources and trips . .	1.50	4.06
		}20.70	}56.02
IS	IN-SERVICE TRAINING Staff meetings, informal consultation	1.25	3.38
IR	Reading of professional magazines . .	1.00	2.71
		}2.25	}6.09
AS	ADMINISTRATION Supervising children before . .	0.15	0.41
AW	Assembly / Act of Worship	0.25	0.68
AB	Breaks - free of work	0.50	1.35
AF	Breaks - not free of work	0.50	1.35
///	Registration, moving children . .	0.70	1.89
		}2.10	}5.68
OA	OTHER ACTIVITIES Other activities	0.35	0.95
	TOTAL	36.95	100.00

The Working Week

The summary data for Jean's entire working week, derived from the ROTT, are presented in Table J1. Jean recorded a total working week of 36.95 hours, with entries being made on each of the seven days of the schedule. On weekdays, Jean worked for between 3.6 and 9.5 hours, with the longest hours being recorded on days with a full teaching commitment: this gave an average of 6.19 hours work each weekday. She worked for six hours over the weekend, during which, all of her time was coded to be spent in aspects of preparation.

As Jean taught for only half of the week in which she completed the ROTT, the part-time nature of her work must be considered. Jean recorded herself to be engaged in work on the school premises for eighteen hours: just less than half of all entries.

In all areas of work except for those of preparation and marking, Jean spent similar amounts of time to that recorded by the 47 teachers with a 0.5 contract in the study by the School Teachers' Review Body (1996, Table A20). Aspects of preparation totalled more than 56 per cent of her hours worked and totalled 20.7 hours, compared to the 9.6 hours reported by 0.5 teachers in the study by the School Teachers' Review Body. Direct teaching accounted for 31.3 per cent of Jean's week. The preparation: teaching ratio was 1.79:1, thus for every hour spent in preparation 34 minutes were spent teaching, this ratio rose to 1.88:1 when the reading of professional journals was included in aspects of preparation, far higher than the figure of 0.86:1 (0.96:1) of teachers in the study by Campbell and Neill (1994). Liaison with staff, staff meetings and the reading of professional materials accounted for just over 6 per cent of her time. Administrative codes took nearly 5.7 per cent of Jean's time, with the code for 'Registration, moving children, tidying up, etc.' representing nearly a third of this. Other activities were recorded for just over twenty minutes during the week.

Work outside school hours

Both Linda and Jean noted independently in their interview that they did work outside school hours. Both Jean and Linda had found the planning of schemes of work to be particularly

time-consuming. these had been written from scratch in preparation for the OFSTED inspection. They reported that the rough planning of the English scheme had taken them at least six Mondays, with each meeting lasting from 9.30 a.m. to 2 p.m.. After this had been completed, time allocations had to be calculated and transcribed into percentages, then the teaching of different aspects of English had to be divided up and then it was decided which aspects each would teach; medium term plans were written, mainly, it seemed, for the OFSTED inspection: Linda and Jean had written not only the termly plan for the term of the inspection, but also retrospectively for the preceding term. Monday mornings were spent at Linda's home planning together and indeed, Linda commented that Jean was her most frequently called 'Friends and Family' number on her telephone bill, indicating the amount of time which this took up. Whilst Jean and Linda consulted regularly about their teaching, particularly the teaching of English, they did not meet with George or Brenda. They gave the reason for this as being that they taught aspects of the same subject but that there was no such overlap with the other two teachers. George had however been observed teaching aspects of English and taught Mathematics as a regular part of his timetable, therefore overlapping with both Linda and Jean.

In the week in which the ROTT was completed, when the entries on the two days on which she did no teaching are combined with the entries for the weekend, as days away from work or 'days off', Jean recorded a total of fourteen hours of work, equating to three and a half hours a day. of this total, nine minutes were coded as 'Other Activities' and the remaining time was spent in aspects of preparation.

The School Week

Table J2 gives a breakdown of Jean's teaching week as she recorded on the ROTT. This was considered to be from 8.30 to 3.45 on the two full teaching days and from 8.30 to 12.00 on the morning on which she recorded herself as teaching, giving an expected total of eighteen hours. Whilst the total in Table J2 is the expected eighteen hours, on Jean's full days of teaching she was not at school for the full period of observation, yet this is offset by inclusion in the analysis of the

Table J2: Jean's School Week (data derived from the Record of Teacher Time)

indicating the total time recorded on each activity in hours

and the proportion of entries which that represented

CODE	ACTIVITY	TOTAL TIME RECORDED (HOURS)	PROPORTION OF ALL ROTT ENTRIES (%)
multiple entry	TEACHING Mixed subjects	3.40	18.89
TE	English, Language, Reading, . .	0.85	4.72
TM	Mathematics	2.40	13.33
TH	History	1.60	8.89
TG	Geography	1.50	8.33
TP	P.E.	0.55	3.06
TO	Other	1.25	6.94
		}11.55	}64.16
PR	PREPARATION/MARKING Preparation and planning for learning	2.10	11.67
PM	Marking	1.00	5.56
		}3.10	}17.23
IS	IN-SERVICE TRAINING Staff meetings, informal consultation	1.25	6.94
AS	ADMINISTRATION Supervising children before . .	0.15	0.83
AW	Assembly/Act of Worship	0.25	1.39
AB	Breaks - free of Work	0.50	2.78
AF	Breaks - not free of work	0.50	2.78
///	Registration, moving children, . .	0.70	3.89
		}2.10	}11.67
	TOTAL	18.00	100.00

forty five minute period following Jean's morning session of teaching, during which she recorded continuing her work at school before leaving.

Nearly two thirds (63.29%) of Jean's time was spent in teaching, amounting to 11.55 hours of lessons. The CCR was 1.71:1 which in turn was the highest figure for any Key Stage Two teacher in the study. Periods when Jean entered more than one subject being taught amounted to nearly three and a half hours (3.4 hours) of lessons and for more than three quarters of this time both English and Mathematics were included in the list of entries. English and Mathematics were recorded for a total of 8.55 hours, with the sum of individual subjects being 18.35 hours. Of the single subject English entries, twenty one minutes were entered following registration when Assembly was usually time-tabled: if the week was typical of those observed, then this would have represented the time when she usually worked with a Year Three child with special needs on a one-to-one basis.

Four subjects were recorded as having been taught by Jean during the final hour and a half of the Friday afternoon and this is consistent with the observer's notes during the same period on Fridays of Jean directing those children who did not go out to play football time to 'finish off' work or to work on individual projects in this period.

Nearly 17 per cent (16.99%) of the time was taken up by aspects of preparation, with preparation and planning being coded for just over two thirds of this time and marking children's work making up the remaining third. The category included as Professional Development was made up solely of entries coded as IS, indicating either staff meetings or informal consultation with colleagues. These were recorded to go on only at lunchtimes. Nine minutes were coded as supervising children before school and their inclusion at the start of one school day may be explained by a rainy morning as it was unusual for Jean to allow pupils in to the classroom before school for any other reason. No 'other activities' were recorded during the school week.

An hour was detailed as breaks, be they working or free of work. The thirty minutes coded as being free of work were made up of one morning playtime and a quarter of an hour one lunchtime. It

Table J3: Jean's time before and after the school day, from 8.30 - 9.00 a.m. and 3.15 - 3.45 p.m.

(data derived from participant observation) expressed as both the total time observed and a proportion of all such observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL TIME OBSERVED BEFORE AND AFTER SCHOOL (%)
21: Co-ordinator Role	0.85	15.09
22: Staff Liaison	0.13	2.37
23: Parental Liaison	0.63	11.24
25: Preparation	2.75	48.82
27: Relaxation	0.20	3.55
29: Supervision	1.07	18.93
TOTAL	5.63	100.00

Table J4: Jean's Break and Lunch times (data derived from participant observation) expressed as

both total time observed and proportion of all such observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVED BREAKTIMES (%)
22: Staff Liaison	0.17	1.66
25: Preparation	5.83	58.13
27: Relaxation	2.17	21.59
28: Duty	1.87	18.60
TOTAL	10.03	99.98

appeared that Jean used the AF code to indicate only when she was on playground duty as these entries corresponded to her duties on the weekly rota for staff. The more specific coding of IS was used by Jean for the rest of her breaktimes when she was working.

The Teaching Day

Jean was observed for eight days, to reflect her 0.4 teaching commitment. On each occasion that she was observed, she taught for the whole day: no half days are included in this analysis. She was observed to only teach her own class: there were no class exchanges between herself and other members of staff. Observations totalled 56.03 hours. Over the eight days, observations were divided as follows, 39.47 hours were spent in contact with her class, 10.03 hours were taken with break and lunchtimes, 0.9 hours were spent as non-contact time and 5.63 hours were spent on the school premises at both ends of the school day. These broad blocks of time are considered in detail below.

Before and After the School Day.

Table J3 details how Jean's time was spent before and after the school day. Observations ran for half an hour at each end of the day: over eight days giving a maximum of eight hours observation in these periods, of which Jean was at school for just over five and a half hours. This reflects the fact that Jean frequently arrived at school shortly after 8.30 a.m. when observations began. Indeed, on two days she arrived after 8.45 a.m. and also she left school before 3.45 p.m. on every day and before 3.30 p.m. on three of these. She had a thirty minute drive to work: she told the observer that she planned always to arrive at work by 8.30; on days when she arrived later than this she had been delayed in traffic. Nearly half (48.82%) of the time before school began was spent in preparation. She would usually go first to the staffroom to photocopy any worksheets which she would be using during the day. Worksheets which were prepared at home were hand-written, however, Jean also used published worksheets, especially for Geography lessons. In the case of the published worksheets, Jean arrived at school with the pages already selected and marked. Whilst the photocopier was running, she would sort through the post in her pigeonhole which almost exclusively comprised promotional catalogues for Mathematics, Geography or Special Needs

resources. and collect a mug of tea before going over to her classroom, disarming the alarm and preparing for the first lesson.

Observations in Jean's classroom took place in the winter and so it was common for children to arrive in the classroom before school began because of wet weather. Jean insisted that these early arrivals sit quietly with either a reading book or some other work until 9.00 a.m.. This was also a time for Jean to talk to individual children at her desk, either about their work if any had specific difficulties or about their progress. The latter was linked to the record-keeping which Jean routinely did and she would, for example, ask individuals to name two areas in which they wished to improve that term. These activities were coded as 'Supervising children' and occurred exclusively in between 8.45 and 9.00 a.m. and 3.15 and 3.30 p.m.. Parental liaison was most frequent in these periods, as would be expected, with parents coming into the classroom to see Jean with queries as they brought their children to school.

At the end of the school day, Jean would dismiss the class and waited for them to all go home before leaving herself. By 3.30 p.m. she had left or was in the stages of leaving, perhaps stopping to have a word with a parent. Between dismissing the class at 3.15 p.m. and leaving, Jean would typically tidy up her desk and collect work to be taken home for marking.

Non-Contact Time

Jean had fifty four minutes of non-contact time over the eight days of observation; all of this was made available during assemblies when staff were not required by the headteacher to attend. Three quarters (74%) of this time, amounting to forty minutes, was spent by Jean in her role as Special Needs co-ordinator: either maintaining records of individual children, discussing the typing up of the Special Needs policy with the school secretary or, for twenty minutes, working with a child who had special needs; technically reducing the amount of non-contact time still further. The remaining time was spent talking with staff: teachers and the school secretary about non-school matters.

Breaktimes and Lunchtimes

Jean engaged in a narrow range of coded activities during break and lunch times which are summarised in Table J4. Ten hours of such breaks were time-tabled over the eight days of observation: in reality, they ran over by a total of two minutes, reflecting a strict adherence to school hours. Preparation was again the dominant activity, accounting for nearly sixty per cent (58.13%) of Jean's break times. Whilst relaxation was the second most frequently observed activity, it must be noted that it amounted to only just over two of the ten hours of time-tabled breaks: an average of just over sixteen minutes each day.

Jean had to do playground duty for one morning each week. She would go straight out to the playground and collect her mug of tea from the staffroom window. As with the other Key Stage Two teachers at Pear Tree School, either the headteacher or one of the teachers from the Reception and Key Stage One class brought Jean a cup of tea in the afternoon whilst she was teaching.

Lunchtimes were coded to be spent in preparation and relaxation. Jean would typically work in the classroom marking the morning's work for twenty minutes before going to the staffroom for lunch and then returning to the class to prepare for the afternoon session for the final twenty minutes of the break. This seemed to be a conscious division of her lunchtime as she adhered to these times except when it was raining and the children returned to the class for the lunchtime breaks: on these occasions she went to the staffroom, but often continued to mark work as she ate her lunch.

Lesson Time

Jean was observed teaching the class for 39.47 hours: an average of 4.93 hours each day. Lessons were time-tabled for five hours each day, but it must be remembered that this total includes assembly times. When assembly totals are included, this figure rises to forty hours and twenty two minutes: the twenty two minutes indicating that the school day over ran by approximately three minutes each day. Table J5 excludes assembly time which has been considered above. Table J5 demonstrates a wide variation in the amount of time which Jean spent on each of the activities.

Table J5: Jean's Lesson Time (data derived from the coding of participant observation) expressed both as time observed and the proportion of all such observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVED LESSON TIME (%)
1: Register	1.17	2.96
2: Transition	0.57	1.44
WHOLE CLASS		
3: Instruction	1.07	2.70
4: Teaching	1.57	3.97
5: Story	0.70	1.77
6: Praise	0.50	1.27
7: Test	0.90	2.28
8: Class Enquiry	3.43	8.70
9: One way Class Enquiry	0.17	0.42
	}8.34	}21.11
GROUP		
10: Instruction	0.87	2.20
11: Teaching	1.20	3.04
12: Monitoring	0.20	0.51
	}2.27	}5.75
INDIVIDUAL		
13: Single Child	11.85	30.03
14: Reader	2.17	5.49
15: Special Needs	0.70	1.77
16: Mobile Monitoring	0.67	1.69
	}15.39	}38.98
17: Routine	1.57	3.97
18: Inert Supervision	1.75	4.43
19: Settling Time	0.77	1.94
22: Staff Liaison	0.5	1.27
24: Other Liaison	0.37	0.93
25: Preparation	5.97	15.12
29: Supervising Children	0.67	1.69
30: Other	0.17	0.42
TOTAL	39.47	100.01

Table J6: Jean Martin, Proportion of observed times spent on activities in

English lessons (1.80 hours); Mathematics lessons (8.85 hours);

Geography lessons (5.00 hours); CDT lessons (2.33 hours); History lessons (3.37 hours); RE lessons

(4.53 hours) and Mixed subject lessons (10.47 hours)

ACTIVITY	ENG	MATHS	GEOG	ART/ CDT	HIST	RE	MIXED
1. Register	27.78	0.00	0.00	0.00	0.00	0.00	2.23
2. Transition	0.00	0.75	0.00	0.00	0.00	0.00	0.00
WHOLE CLASS							
3. Instruction	3.70	3.39	6.00	2.86	1.98	3.68	0.96
4. Teaching	0.00	3.77	8.00	7.14	19.80	0.00	0.00
5. Story	7.41	0.00	0.00	0.00	0.00	0.00	5.41
6. Praise	0.00	0.00	2.67	0.00	0.00	5.88	0.00
7. Test	0.00	0.00	18.00	0.00	0.00	0.00	0.00
8. Class Enquiry	18.52	6.40	11.33	14.29	26.73	14.71	0.64
9. One Way Class Enquiry	0.00	0.00	0.00	0.00	2.97	1.47	0.00
	}29.63	}13.56	}46.00	}24.29	}51.49	}25.74	}7.01
GROUP							
10. Instruction	0.00	4.90	1.33	0.00	0.00	0.73	3.18
11. Teaching	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12. Monitoring	0.00	13.56	0.00	0.00	0.00	0.73	1.59
	}0.00	}18.46	}1.33	}0.00	}0.00	}1.47	}4.77
INDIVIDUAL							
13. Single Child	24.07	51.41	12.67	75.71	46.53	0.00	27.71
14. Reader	0.00	7.53	4.67	0.00	0.00	27.94	0.00
15. Special Needs	0.00	2.26	0.00	0.00	0.00	11.03	0.00
16. Mobile Monitoring	0.00	0.00	10.67	0.00	0.00	0.00	1.27
	}24.07	}61.21	}28.01	}75.71	}46.53	}38.97	}28.98
17. Routine	7.41	1.88	11.33	0.00	1.98	1.47	4.14
18. Inert Supervision	0.00	0.00	0.00	0.00	0.00	25.73	0.00
19. Settling Time	0.00	0.00	3.33	0.00	0.00	1.47	0.00
22. Staff Liaison	0.00	0.00	3.33	0.00	0.00	1.47	2.55
24. Other Liaison	9.26	0.38	0.00	0.00	0.00	0.00	0.00
25. Preparation	1.85	3.77	6.67	0.00	0.00	3.68	50.32
29. Supervising Children	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30. Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.05	100.01	100.00	100.00	100.00	100.00	100.00

Some codes did not occur. Working with a single child proved to be the activity which was observed most frequently: averaging 1.48 hours of lesson time each day. If the above table is collapsed and the average time spent on activities each day is considered, then only a small amount of time, ten minutes a day, was lost from lesson time through the class moving between lessons and settling on return to the class largely because Jean had no lessons for example in the hall or playground. The amount of time spent actively teaching however was relatively small: just 3.25 hours a day, or 65.83 per cent of available lesson time.

Jean usually began the school day by formally greeting the class, either in English, French or German, before calling the register. Registration took less time than in Mike's class: being older children, they needed less time to hand in any monies and were also more certain of whether they were having milk or not!

When compared to the other case study teachers, a high proportion of Jean's time in lessons was spent in preparation. On Friday afternoons, from about 2.25 p.m. a parent came to the school to teach football to the boys in Jean's class. The children who remained in the classroom spent the rest of the afternoon completing individual topics which they researched and organised completely independently from her, requiring no supervision. During these periods, Jean was observed to engage in a variety of tasks coded as 'Preparation', such as entering marks into her record book, marking work, writing out distance awards for swimming and mounting work for displays. The overall proportion of time spent in preparation could be seen to be higher in reality as Jean would also use opportunities in other lessons when the children were completing tests for aspects of preparation, however in these cases her time was coded to be involved with the whole class undergoing a test as it was judged that invigilating the class was her first concern.

More than four per cent (4.43%) of Jean's time in lessons was coded as 'Inert supervision'. Some of this time was from periods when the class was completing a task which required quiet, for example copying a spelling list from the blackboard and the rest was at moments when Jean returned to her chair and just watched the class working. A small proportion (1.77%) of Jean's time

was coded as 'Story', however, this time could have been included as inert supervision as the story was not read by Jean, instead the class listened to a tape whilst Jean sat at her desk and rather than punctuating the broadcast with questions she left these until the end of the chapter.

Time coded as 'Staff liaison' included occasions when Jean talked to the member of staff who brought her tea in the afternoon, during either Geography or project work, and in the mornings when the secretary had queries regarding the register. A small amount of time was spent talking to the school vicar who Jean wanted to visit to talk to the class for R.E..

Of the time coded to be directly teaching, individual teaching dominated, with group teaching taking only a small proportion of lesson time. As with all subjects, there were differences in Jean's teaching style according to the subject being taught. Those subjects observed for more than two hours in total are described below and data are detailed in Table J6.

The interview revealed some of Jean's thoughts about how she organised the class. She saw whole class teaching as the best way to keep the class on-task. Jean said that she preferred to use class teaching, defining it as "with them all listening together because I can keep an eye better on what's going on, if they are all doing the same thing and, bring out teaching points as you go along which are relevant to everybody, not just a small group". She qualified this however by saying "but then, saying that, sometimes you need small groups if they are observing something in science or doing a test or experiment I might just . . . I might put them in groups for that". Jean was of a similar mind about her own Mathematics teaching, "numberwork they are all working individually, but if they are doing measuring, weighing, problem-solving they are sometimes better in pairs or small groups. That is because of the apparatus as well. With things like measuring you need two people anyway, don't you?".

Mathematics

Jean was observed to teach Mathematics as a single subject for nearly nine hours. As Mathematics co-ordinator she considered herself to have expertise in the subject and had attended

recent courses. More than sixty per cent of these lessons (61.21%) involved working with individual children: a far higher percentage than in any other subject. What is also notable was the fact that Jean spent nearly a fifth of her time working with groups: four times as much time as in any other subject. Whole class teaching was limited to issuing instructions to the class and recapping on previous lessons at the start and end of lessons. Jean had three broad approaches to teaching Mathematics which explain this distribution of her time. The pupils in her class were all at different points in the adopted scheme, in fact they spanned five stages, each, according to the publisher, representing a year's progress. For some lessons she allowed them to continue at their own rate through the scheme, during these sessions she would deal with individual queries at her desk and would, on occasion, become 'trapped' as a long queue formed, reflected by the fact that 'Mobile monitoring' was not observed during Mathematics lessons. Secondly, she would sometimes divide the class into groups, usually only two, one group working on the scheme individually and the other group working either on an investigation or topic devised by Jean or on a topic, such as 'decimals' from pages from the scheme: this accounted for much of the recording of groupwork. Finally, Jean would work with the whole class, explaining a procedure, for example that of long multiplication, on the board using a combination of direct teaching and class enquiry.

Geography

Geography was observed to be taught as a single subject for five hours. Whole class teaching accounted for nearly half of this time (46%), however, nearly a fifth of all time was taken in testing (18%) as Jean set the class a written test on completion of each topic in each subject and during the period of observation the class were set an hour long test on 'Rivers'. This period could have been coded as 'Preparation' as whilst the children were working, Jean marked and sorted work at her desk. Instead, as the work done by Jean during the test was judged to be opportunistic, the test was viewed to be the main purpose of the lesson.

Jean generally began Geography lessons with a class introduction and questioning to recap upon previously completed work before explaining to the class the task which she wanted them to complete. Only just over one per cent of these lessons involved groupwork and this was comprised

exclusively of occasions when Jean talked to children who needed to redo previous work and needed a further common explanation. The remainder of such lessons was typically taken with Jean either dealing with individual queries at her desk or patrolling the class to see how each pupil was coping with the work set. If all children were working without difficulty, Jean would take the opportunity to hear children read or to prepare or mark work, reflecting the dominance of worksheet type activities.

The proportion of time coded as staff liaison was because Geography was taught exclusively in the afternoons during which Jean would be brought a cup of tea by the headteacher who would stop to chat about what was going on in the classroom.

History

Jean had an interest in History and commented that she enjoyed teaching History and Mathematics the most. During History lessons, Jean's time was divided almost equally between whole class and individual teaching for more than ninety eight per cent of these lessons. Lessons typically began with an introduction to the whole class comprising both direct teaching of historical facts and class enquiry: discussion of issues and recapping upon previous work. The remainder of these lessons was involved with dealing with queries from individual children who came to Jean's desk for help. No work with groups was observed.

Art and Design Technology

The practical nature of these lessons meant that children worked individually on projects and three quarters of Jean's time was spent helping individuals and the remaining time was spent at each end of the lesson showing the class techniques and asking them about their designs and models. The observed lessons involved the on-going project of building Tudor houses and other models which would contribute to a large 3-D street scene. The whereabouts of materials and resources were largely known to the children and in this respect they were able to organise themselves, thus no time was given to the routines of giving out work or organising resources. The actual construction of the models did prove difficult and this accounted for the time spent with individuals.

Table J7: Proportion of Jean's time spent teaching different curriculum areas: Comparison of Observational and ROTT data

SUBJECT	PROPORTION OF ALL LESSONS OBSERVED	PROPORTION OF TEACHING ENTRIES ON ROTT
SINGLE SUBJECT TEACHING		
Mathematics	15.79	13.15
Geography	8.92	8.22
History	6.01	8.77
R.E.	8.09	0.00
Design Technology	4.16	0.00
English	3.21	4.66
Other	0.00	6.85
P.E.	0.00	3.01
	}46.18	}44.66
MIXED SUBJECT TEACHING	18.68	18.63

Table J8: Proportion of Jean's time spent on Teaching and Non-teaching Activities: Comparison of Observational and ROTT data

ROTT ENTRIES	% OF ALL ROTT ENTRIES	OBSERVED ACTIVITIES	% OF ALL OBSRVNS
Teaching	63.29	3-19: Teaching	55.10
Preparation and Marking	16.99	25: Preparation and Marking	25.97
Staff Meetings, informal . . .		22: Staff Liaison	1.84
	6.85	24: Other Liaison	0.65
		} 2.49	
Reading of Professional . . .	0.00	21: Co-ordinator role	2.71
Assembly	1.37	31: Assembly	0.00
Supervising children before . .	0.82	29: Supervision	3.09
Registration, moving children .		1: Register	2.08
	3.84	2: Transition	1.01
		}3.09	
Breaks - free of work	4.11	27: Relaxation	4.22
Breaks - not free of work	2.74	28: Playground Duty	3.33
TOTAL	100.01	TOTAL	100.00

Mixed Subject teaching

Jean was coded as teaching 'mixed subjects' for more than ten hours and these were usually periods at the end of the school week. These lessons were either those where the class were 'finishing off' activities or when pupils were involved in completing their individual projects. More than half of Jean's time during these lessons was coded as being involved with aspects of preparation as has been noted above. The nature of these lessons meant that individual children came to see her at her desk for help, occasionally she called them to see her so that she could talk with them and update their record folders. Times coded as giving instructions to groups concerned the return of unsatisfactory work to groups of children and the giving of instructions as to how it had to be corrected or redone. Jean would sometimes read a story to the class during these periods whilst the children worked on their topics quietly.

Comparison of ROTT Data and Observational Data

When the percentages in Table J2 above are compared to those of equivalent categories of codes for participant observation, patterns begin to emerge from the data. Teaching codes are compared in Table J7 below and the ROTT codes are compared fully with observations in Table J8. Overall, Jean was observed teaching single subjects for 46.18 per cent of the time, and mixed subjects for 18.68 per cent of the time. On the ROTT schedule single subject teaching accounted for 44.66 per cent of the teaching day and mixed subject teaching for 18.63 per cent. In order to be comparable to the ROTT data, the figures for observations were derived from the subject coding: that is, the subjects which the class were recorded to have been set or to be participating in.

Table J8 shows a high level of agreement between the coding of the ROTT schedule and observational field notes in terms of the proportion of time spent overall by Jean teaching single and multiple curriculum areas. Differences appear however in the proportion of time given to individual subjects: for example, 4.16 per cent of observations involved the teaching of Design Technology, yet this subject was not recorded in the ROTT. This difference is accounted for by the fact that Jean's responsibilities altered between the period of observation and completion of the ROTT. In the case

of Design Technology, Arthur had taken over the teaching of this, whilst Jean took over from Mike in the teaching of P.E. to the class.

Table J8 shows that there was a close correlation between some of the categories which can be easily compared, for example, 'AB: Breaks - free of work' and 'Relaxation'. Other categories, which do not match as closely in terms of the proportion of time recorded/observed can, on the whole be more closely matched if certain observed 'one-off' events are removed from the summations. This is perhaps most easily be seen in the case of the code 'AF: Breaks - not free of work' and '28: Duty'. On one occasion over the period of observation, Jean did ten minutes extra duty when Mike had forgotten to go out onto the playground. If these ten minutes were removed from the total for 'Duty', then the proportion of Jean's time spent on this activity would fall to 3.03 per cent: much closer to the ROTT recording. Staff meetings were irregular and the fact that only one took place every half term explains the difference between time observed and recorded spent in staff meetings: only one was observed yet one also took place in the week in which Jean completed the ROTT schedule.

Summary: the work of Jean Martin

Jean's work was characterised by large proportions of time spent in preparation. Whilst proportionately time spent on marking and organising resources was in proportion with the full-time teachers studied by Campbell and Neill, she recorded disproportionately large amounts of time in planning for learning. The high proportion of time spent in preparation during lessons was most notable. This appeared to be a result of her part-time role. Preparation was completed on a Friday when pupils were finishing work in order that all would start at a common point the following week and as such was a strategy for maintaining the pace at which work was completed. For Jean too, record-keeping appeared to be a necessary strategy for keeping track of the pupils. Having only a part-time role, she had far less contact with the pupils, yet bore the same responsibility for notifying parents and planning for progression.

There was great variation in the way in which she organised lessons of different curriculum areas. Groupwork dominated Mathematics lessons. This was a subject in which she considered herself to be a specialist. Broadly, when teaching subjects in which she had sound subject knowledge, English and the Humanities she used high levels of class enquiry particularly when introducing a lesson before setting pupils to work on tasks independently. Conversations demonstrated that she felt stretching all pupils was a priority.

Multiple posts of responsibility are not unusual in small schools where there are only a few staff amongst which to share all areas of the curriculum. Jean in this sense had a heavy load but during the study it did not place heavy demands upon her time. The part-time nature of her work placed more demands on her time than these responsibilities particularly as by other staff as well as pupils and parents she was seen to have ultimate responsibility for the class. This added to her workload, particularly as she liaised with Linda extensively outside school hours .

Linda Meadows

Linda had specialised in Social Sciences during her training and had a total of sixteen years teaching experience. She had worked in only one other school which was notable for being the largest junior school in Birmingham at the time. She was there for seven years and whilst she taught a Year Three class in her first year. In her time at the school she taught all of the junior age groups. Following her year as a probationary teacher, she moved to a different department within the school. Whilst she was there, she worked with the Head of Department to set up a resources centre for environmental studies: primarily History and Geography.

Linda had worked at Pear Tree School for four years and had a 0.3 contract. She taught the Year 5 and 6 class for one and a half days a week, usually focusing on the subjects of Science and English. She was responsible for Science and swimming throughout the school.

Linda taught in the temporary classroom where the Year 5 and 6 class were based. Science had been a priority in the School Development Plan prior to the study and Linda drew apparatus from a well stocked cupboard in the main building of the school. The quantity Science resources were a source of good humoured fun for the staff in Linda's absence. Brenda the headteacher would often joke that she was not going to leave any Science leaflets in Linda's pigeonhole as the school couldn't afford or accommodate any more!.

Due to outside commitments, the observer was unable to be present in school for most Thursdays during the term of observation in the Year 5 and 6 class: the day on which Linda did a full day of teaching. This meant that of the six days of observation of her work, only one was a complete day, the rest comprised ten morning sessions. There is therefore a mismatch between the observations and the ROTT recordings.

Table L1: Linda's Working Week (data derived from the Record of Teacher Time) indicating the total time recorded on each activity in hours and the proportion of all such entries which that represented

CODE	ACTIVITY	TOTAL TIME RECORDED (HOURS)	PROPORTION OF ALL ROTT ENTRIES (%)
multiple entry	TEACHING Mixed subjects	1.65	6.06
TE	English, Language, Reading, . .	1.75	6.42
TS	Science	1.80	6.61
TP	P.E. / Movement	0.90	3.30
TU	Music	0.65	2.39
		}6.75	}24.77
PR	PREPARATION / MARKING Preparing and planning for learning .	13.75	50.46
PM	Marking	0.50	1.83
PO	Organising resources and trips . .	2.50	9.17
		}16.75	} 61.47
AD	ADMINISTRATION Mounting displays	0.60	2.20
AB	Breaks - free of work	0.75	2.75
AF	Breaks - not free of work	0.75	2.75
///	Registration, moving children . .	0.95	3.49
		}3.05	} 11.19
OA	OTHER ACTIVITIES Other activities	0.70	2.57
	TOTAL	27.25	100.00

Table L2: Linda's School Week (data derived from the Record of Teacher Time) indicating the total time recorded on each activity in hours and the proportion of all such entries which that represented

CODE	ACTIVITY	TOTAL TIME RECORDED (HOURS)	PROPORTION OF ALL ROTT ENTRIES (%)
multiple entry	TEACHING		
	Mixed subjects	1.65	15.35
	English	1.75	16.28
TE	Science	1.80	16.74
TS	P.E.	0.90	8.37
TP	Music	0.65	6.05
TU		}6.75	}62.79
PR	PREPARATION/MARKING Preparation and planning for learning	1.50	13.95
AB	ADMINISTRATION		
	Breaks - free of Work	0.75	6.98
AF	Breaks - not free of work	0.75	6.98
///	Registration, moving children, . .	0.95	8.84
		}2.45	} 22.79
OA	OTHER ACTIVITIES Other activities	0.05	0.46
	TOTAL	10.75	99.99

The Working Week

Linda completed the ROTT in a week when she taught for one and a half days: her usual 0.3 teaching commitment. She recorded a working week of 27.25 hours, with entries being made on every day except for Sunday. Her work on Saturday totalled 1.9 hours, all of which was coded as preparation (PR).

Table L1 summarises Linda's entire working week, based upon entries to the ROTT schedule. Direct teaching accounted for 24.77 per cent of Linda's week, with aspects of preparation totalling over sixty per cent (61.47%) of her hours worked. Administrative codes accounted for over ten per cent (11.19%) of entries, with the code for 'Registration, moving children, tidying up, etc.' representing nearly a third of this. Ninety minutes were coded as Breaks, either working or free of work, indicating that Linda adhered to these codes for time-tabled breaks and did not enter more specific work codes, if applicable, during these periods.

The School Week

Table L2 gives a breakdown of Linda's teaching week, that is, from 8.30 until 3.45 on the full day of teaching and from 8.30 until 12.00 on the half day of teaching according to entries made in the Record of Teacher Time. Nearly two thirds (62.79%) of her time was spent in direct teaching and nearly a seventh (13.95%) in preparation.

The Teaching Day

Before and After the School Day

Table L3 summarises the way in which Linda spent her time before and after the school day. This totalled 2.38 hours, of which more than two hours (86.01%) was spent in aspects of preparation. Linda would work in the classroom before school, sorting out the large box of marked work and resources which she brought to work each day. She would often visit the Science stock

Table L3: Linda's time before and after the school day (data derived from participant observation) expressed as both the total time observed and a proportion of all such observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL TIME OBSERVED BEFORE AND AFTER SCHOOL (%)
21: Co-ordinator role	0.23	9.79
25: Preparation	2.05	86.01
27: Relaxation	0.10	4.20
TOTAL	2.38	100.00

Table L4: Linda's Non-contact time (data derived from participant observation) expressed as both the total time observed and a proportion of all such observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVED NON-CONTACT TIME (%)
1: Registration	0.13	5.03
24 Other Liaison	0.10	3.77
25: Preparation	2.42	91.19
TOTAL	2.65	99.99

Table L5: Linda's Break and Lunch times (data derived from participant observation) expressed as both total time observed and proportion of such observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVED BREAKTIMES (%)
21: Co-ordinator Role	0.82	12.13
22: Staff Liaison	0.27	3.98
25: Preparation	2.18	32.59
27: Relaxation	1.63	24.38
28: Duty	1.63	24.38
29: Supervising Children	0.17	2.49
TOTAL	6.70	99.95

Table L6: Linda's Lesson Time (data derived from the coding of participant observation) expressed both as time observed in hours and the proportion of all such observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVED LESSON TIME (%)
1: Register	0.54	2.03
2: Transition	0.43	1.62
WHOLE CLASS		
3: Instruction	1.72	6.47
4: Teaching	2.55	9.59
6: Praise	1.07	4.02
7: Test	0.65	2.44
8: Class Enquiry	5.33	20.05
9: One way Class Enquiry	0.29	1.09
	}11.60	}43.66
GROUP		
10: Instruction	0.10	0.38
11: Teaching	0.72	2.69
12: Monitoring	2.39	8.99
	}3.21	}12.06
INDIVIDUAL		
13: Single Child	4.13	15.51
14: Reader	1.43	5.39
16: Mobile Monitoring	1.00	3.77
	}6.56	}24.67
17: Routine	2.33	8.78
18: Inert Supervision	0.24	0.92
19: Settling Time	0.19	0.70
21: Co-ordinator Role	0.67	2.53
24: Other Liaison	0.47	1.78
25: Preparation	0.32	1.18
29: Supervising Children	0.03	0.11
TOTAL	26.59	100.02

cupboard in the main building of the school to collect equipment for investigations. Linda complained about sharing the classroom with other staff as they altered it from the way in which she had left it and so time had to be spent each morning in arranging the class for the day's lessons

Non-Contact Time

Linda's non-contact time (Table L4) once again only existed in the form of time when she was released from attending the assembly and amounted to 2.65 hours of observations. Preparation was the dominant activity amounting to more than ninety per cent of all such periods. Linda spent most of this time in sorting resources for the day's lessons.

The small amount of time coded to be concerned with activities other than preparation relates to a period when Linda went to the staffroom and completed the dinner register and then, whilst there, talked to a visiting representative from a book publisher.

Breaktimes and Lunchtimes

Break and lunchtime observations are summarised in Table L5. Preparation again was the most frequent type of work which Linda engaged in, taking up a third (32.59%) of her time. She found some time to relax, usually only at lunchtime when eating her sandwiches, but this was equalled by the amount of time which Linda spent on playground duty. The relatively high proportion of time spent in her role as Science co-ordinator, was due to a meeting which she had one lunch hour with a representative from an supplier of school science equipment. The small amount of time remaining was divided between time coded as supervising children when the lesson ran over into the break and liaison with staff when Linda discussed the organisation of swimming lessons with the secretary.

Lesson time

Linda was observed teaching for 26.59 hours (Table L6), form a possible total of 29.75 hours, the shortfall being attributed to assembly and registration time, the latter of which could be considered to be over-represented as so many morning sessions were represented. Most of this was

teaching the upper junior class, but some of the P.E. codes included lessons with Mike's class. Each week the juniors travelled to the local swimming baths and Linda taught groups throughout these lessons.

More than three quarters (80.35%) of this time was spent in either whole class, group or individual teaching. Of this, more than half was taken with whole class teaching, more than thirty per cent was individual teaching and the remaining nearly twenty per cent to group teaching.

For 2.13 hours of observed lessons, the class was engaged in more than one subject simultaneously. Some of these periods were 'finishing off' lessons when the class had to complete work for Linda. At other times, Linda was left with only about three quarters of the class, whilst some of the girls in the class went to play netball with a parent helper, thus accounting for the high proportion of time coded as group teaching activities.

Some of the interview data give an insight into Linda's feelings on her teaching style. When interviewed, Linda was cautious about the use of groupwork and expressed a preference for whole class teaching, saying that she endeavoured to introduce lessons to the class as a whole so that she could "keep an eye better on what's going on . . . and bring out teaching points as you go along which are relevant to everybody". Whole class teaching was seen as a device for keeping pupils on-task. When questioned about groupwork, Linda saw it as useful when conducting experiments in Science but acknowledged almost an element of luck if the pupils learnt all that the teacher wanted if left to work in a group. In the interview both Linda and Jean agreed and together they acknowledged that whole class teaching enabled the teacher to keep the children on-task more: as Linda put it, "You need very responsible children to get one hundred per cent out of them" and Jean added to this, "unless they are really focusing and sort of pick up on what you want them to". Linda concluded by saying, "I think subject matter rather than subject: whatever you are teaching within that subject. I think sometimes, story-writing obviously you do as a class but if they are doing play-writing, or sometimes maybe if you did it with poetry, you might decide it's better in group, but I wouldn't say I

taught one subject with groups and one not”. Linda further saw the amount of apparatus available to be a further constraint to teaching and classroom organisation.

Linda viewed group work to be appropriate in some cases, “Some work is suitable for groups, you know, but if you've got to do an initial explanation for the whole class, then it's silly to do it to small groups, so then the whole class get the teaching and Maths, I group them according to ability, according to what book they're on”. She warned however, “The danger in small groups at that age is they're more interested in discussing the football than they are in discussing their history”.

The field notes of Linda's teaching reflect her belief in whole class teaching. Analysis of her overall teaching 'style' is problematic as the nature of the subjects taught led to her time being spent in very different ways. Observed P.E. lessons comprised entirely swimming lessons at the local baths, both for a group of children from her own class and, in a following lesson, for a group of children from Mike's class. Consequently, no whole class teaching was recorded. The same was true for 'Mixed subject' teaching which occurred when children from the class went out to play either netball or football with parent helpers and Linda continued to teach the remaining group of children. These two curriculum areas were therefore different in nature to the class-based lessons of English and Science, which, in turn were very different from each other.

If the subjects of English and Science are considered together, an average of nearly eighty five per cent of lesson time was spent on the broad teaching categories, of which forty five per cent (45.58%) of all lesson time was spent in whole class teaching, thirty per cent in individual teaching (30.09%) and eight per cent (8.49%) in groupwork. In both subject areas, 'Class Enquiry' was a frequently observed activity, contributing in both coded forms (codes 8 and 9), on average, to nearly a quarter of all such lessons (24.95%). When the teaching categories are considered in isolation for the subjects of English and Science, over half of teaching concerned the whole class, over a third to individual work and the remaining ten per cent to groupwork

Table L7: Linda Meadows, Proportion of observed times spent on activities in

English lessons (7.17 hours); Science lessons (10.82 hours)

PE (swimming) lessons (2.80 hours) and Mixed subject lessons (2.13 hours)

ACTIVITY	ENGLISH	SCIENCE	P.E.	MIXED
1. Register	3.49	0.00	0.00	0.00
2. Transition	0.00	0.31	58.42	7.81
WHOLE CLASS				
3. Instruction	5.58	5.39	0.00	10.16
4. Teaching	3.26	13.71	0.00	3.13
5. Story	1.86	0.00	0.00	0.00
6. Praise	7.91	1.69	0.00	0.00
7. Test	0.00	1.85	0.00	11.72
8. Class Enquiry	20.00	27.89	0.00	0.00
9. One-Way Class Enquiry	0.47	1.54	0.00	0.00
	}39.08	}52.07	}0.00	}25.01
GROUP				
10. Instruction	1.86	0.62	6.33	0.00
11. Teaching	3.72	4.62	12.66	0.00
12. Monitoring	0.00	6.16	10.12	46.88
	}5.58	}11.40	}29.11	}46.88
INDIVIDUAL				
13. Single Child	20.93	16.49	8.86	0.00
14. Reader	16.28	0.00	0.00	0.00
16. Mobile Monitoring	0.00	6.47	0.00	0.00
	}37.21	}22.96	}8.86	}0.00
17. Routine	0.47	8.47	3.80	20.31
18. Inert Supervision	0.00	1.54	0.00	0.00
19. Settling Time	2.33	0.00	0.00	0.00
21. Co-ordinator Role	6.51	0.00	0.00	0.00
24. Other Liaison	0.00	3.08	0.00	0.00
25. Preparation	3.02	0.00	0.00	0.00
29. Supervising Children	2.33	0.00	0.00	0.00
TOTAL	100.02	99.83	100.01	100.01

English

English lessons largely concerned grammar work and were observed for a total of 7.17 hours. Linda's lessons were based upon a variety of texts, from 'The Diary of Ann Frank' to the Dennis the Menace Annual, and it is her reading from these texts which accounts for the presence of 'Story' in the codings. The remaining English codings are derived from periods during Registration when Linda asked the class to read silently whilst she sorted out such things as dinner money.

English lessons were characterised by the low proportion of groupwork: only five per cent of lessons (5.58%). Whole class teaching and individual teaching were present in similar proportions: just below forty per cent in each case (39.08 and 37.21% respectively). Class enquiry was coded for a fifth of all lesson time and therefore contributed to over half of all whole class entries. Similarly, individual work coded as 'Single Child' was coded for more than a fifth of all lessons (20.93%) and also contributed to more than half of all individual teaching. Hearing individual children read was the third most frequently observed activity (16.28%) during English lessons, indeed, this was the only curriculum area in which Linda found time to do this. Analysis of the systematic observation showed a similar distribution in terms of her interactions, with almost forty per cent of interactions being addressed to both the whole class and individuals and only a very limited amount of interactions, less than seven per cent, having a group audience.

Class based activities amounted to nearly nine per cent (8.62%) of lesson time; as has been mentioned, a third of this was due to Linda setting the class the task of reading whilst she took the register. The time coded as 'Supervising children' is an indication that these lessons overran.

Non-class based activities, such as fulfilling her role as Science co-ordinator, took up nearly ten per cent (9.53%) of all English lessons. This reflects the fact that time was often available, whilst the children were working quietly, for example, to read promotional advertising regarding Science equipment or to prepare for future lessons.

Science

Linda was the school Science co-ordinator and this was considered her specialist subject, although her knowledge and expertise had been derived from in-service training and research in her own time rather than from initial training. Science lessons were observed over 10.82 hours.

TIME	TEACHER ACTIVITY
9.33	Linda begins the lesson by asking the class "what are materials?" "Name me some . . ."
9.35	Linda talks to the class about the state of materials - solids, liquids and gases. Reminds Year 6 that they have touched on this already in the previous year. She asks them if they can remember when.
9.39	Linda gives the class detailed instructions on how to divide their paper into three columns so that they can copy the table on the board. She gives out the plain paper as she explains and reminds them to put their name and the date
9.46	Linda puts three labels on a shelf - solid, liquid and gas. She asks individuals if they can find a solid to put on that part of the shelf. She queries whether a fabric pencil case is a solid - the class are doubtful but one child answers that it must be as it is not a liquid or a gas. She says that the child is right but that they will discuss why later and for the moment they will put it into a query pile
9.50	Linda asks the children to find liquids which she can put on the shelf. The class talk about each one
9.53	Linda asks the class for their ideas on gases which they could, if possible, put on the shelf. One suggests helium, she asks if it is a heavy or a light gas, air, which gases do you know make up air? Following one child's suggestion she asks if mousse or foam is a liquid or a gas
9:56	Linda talks to the class about the constituents of foam
9.59	Linda asks the children to copy the headings from the board and then to add in their own examples in each section - solids, liquids, gases. She walks around the class checking that they do this correctly
10.02	Linda asks the class to finish the word which they are on as she wishes to move on. She asks them about where they would put butter on their chart - "Why do you think it is a liquid?", she asks a child - "because it was milk" they answer. "What do you need to make it a liquid?" "What about sugar and flour? What are they made from?" - grains, granules, crystals - "Solids then?" "What about the colour of liquids?" "How runny are milk, vinegar and syrup? Are they all the same runniness?" "Who knows the special word for runniness?" "Viscosity means how much liquids run"
10.07	Linda asks the children to put the next heading - she asks the class for the missing words and writes them in when she is given the correct answer. The children copy down the writing
10.08	Linda tells the children that she is going to let them into a big secret in that the mist they see from a kettle is water vapour and not steam as real steam is invisible. "What do you think makes the invisible steam change to water vapour?" - cool air - "What do you think happens when it hits a cold cupboard door?" - condensation. Linda then talks about molecules and particles. She goes through the next section on the board which she asks the children about as she fills in the answers and they copy them down
10.25	The class gets to drawing a jar pouring water and Linda notices the observer helping a child to draw this as the child has drawn the surface of the liquid at an angle. Linda stops the class and talks about the fact that liquids come to rest in a horizontal straight line

The most notable feature of Linda's teaching of Science was that for more than eighty six per cent (86.43%) of all such lessons her time was taken with the broad categories of whole class, group and individual teaching. This high percentage is comprised mainly of whole class teaching activities which amounted to more than half of all lessons (52.07%). In turn, more than half of this was coded as 'Class Enquiry' (27.89% of Science lessons) and a further quarter as 'Whole Class- Teaching' (13.71% of Science lessons). The systematic observations also showed a dominance of whole class interactions, representing some sixty per cent of all interactions. It must also be noted that there were no silent interactions during the period of systematic observation, thus interactions totalled 100 per cent: far more than any other observed lesson, demonstrating that Linda talked throughout the lesson. Science lessons were characterised by lengthy and detailed introductions and periods of direct teaching, for example, on one occasion, Linda conducted two experiments in turn from the front of the class. The extract from the field notes above goes some way towards describing the rich detail which she incorporated into her Science lessons and depth of questioning, reflecting perhaps the levels of preparation which went into each lesson and the fact that this was her specialist subject.

Linda talked at length about the Science programme in the interview and the way in which it influenced her teaching. She saw there to be tensions in trying to cover the whole Science scheme of work, especially as she was a part-time teacher and therefore could not find any extra time during the week to finish off work: "If you start practical work, it can take a month just to do a little test: plan, organise and all that . . . you can't actually cut back on that very well. You can do it with them, show them and get it done in a lesson, but they are really required to do it themselves; in fact, they are really required to do it individually". Further, Linda saw the end of Key Stage testing to add to her problems, particularly as she had a mixed Year 5 and 6 class and the school had adopted a two year rolling programme: "With Year 6, you've only got two terms to teach Science; the third one is when the exam comes and if you have got a mixed (Year 5 and 6) class, that means you have only got four terms rather than five to get the Science work in"

For a relatively high percentage of time in Science lessons (8.47%), Linda was engaged in routine activities, and these naturally concerned such activities as the handing out of equipment for

experiments. Only a small proportion of time (1.85%) was spent on other class based activities and the remaining time (3.08%) was taken up on one occasion in conversation with a visitor to the class.

Physical Education

Swimming lessons were the only form of P.E. which Linda taught, and they were observed for a total of 2.80 hours. By their very nature, the proportions of time given to each of the codes are very different to any class-based lessons. Lessons took place at the local Baths, which took some twenty minutes to get to on the coach; this, combined with changing times led to 'Transition' time to take up well over half of all lessons (54.76%). Further, no whole class teaching was coded: once changed, the children reported to the teacher or attendant who was their group leader. Group teaching activities were therefore the most commonly observed and took up over a quarter of all Swimming lessons (27.37%), and were supported by work with individual children. Naturally, due to the safety aspects of swimming, Linda's attention had to be given fully to the lesson in hand and so no observations were made of non-class based activities.

Mixed Teaching

The two lessons representing mixed subject teaching were different in nature. The first involved the class watching a video on the properties of solids, liquids and gases, but rather than just a Science lesson, the lesson was also quite clearly designed to be concerned with English as Linda gave the whole class a lesson on note-taking skills. The second involved Linda setting the Year Six pupils a practice paper in preparation for the national end of Key Stage testing. The remainder of the class worked on completing Science work.

Comparison of ROTT Data and Observational Data

When the proportions of time spent teaching different subjects are compared (Table L8) using both observational and ROTT data, there is no obvious correlation. This is due to the fact that observations comprised eleven morning sessions and just one afternoon session, whereas the ROTT

Table L8: Proportion of Linda's time spent teaching different curriculum areas:

Comparison of Observational and ROTT data

SUBJECT	PROPORTION OF ALL LESSONS OBSERVED	PROPORTION OF TEACHING ENTRIES ON ROTT
SINGLE SUBJECT TEACHING		
English	21.63	16.28
Science	45.29	16.74
P.E.	0.00	8.37
Music	0.00	6.05
	}66.92	}47.44
MIXED SUBJECT TEACHING	0.00	15.35

Table L9: Proportion of Linda's time spent on Teaching and Non-teaching Activities: Comparison of Observational and ROTT data

ROTT ENTRIES	% OF ENTRIES	OBSERVED ACTIVITIES	% OF ALL OBSRVNS
Teaching	62.79	3-19: Teaching	55.31
Preparation and Marking	13.95	25: Preparation and Marking	22.52
Staff Meetings, informal . . .	0.00	22: Staff Liaison	0.88
		24: Other Liaison	1.42
		26: Staff Meeting	0.55
		} 2.85	
Reading of Professional . . .	0.00	21: Co-ordinator role	4.98
Supervising children before . .	0.00	29: Supervision	0.60
Registration, moving children .		1: Register	1.70
	8.84	2: Transition	0.98
		} 2.68	
Breaks - free of work	6.98	27: Relaxation	5.69
Breaks - not free of work	6.98	28: Duty	5.36
Other activities	0.46	30: Other activities	0.00
TOTAL	100.00	TOTAL	99.99

was completed by Linda in a normal week of teaching: two morning sessions and one afternoon. Differences between the ROTT entries and observation periods also make comparison in Table L9 difficult.

Summary: the work of Linda Meadows

Linda's work was characterised by extreme amounts of time spent in aspects of preparation. Both during the interview and informal conversations, she acknowledged that had she a full-time contract, she would have been unable to maintain such hours. The workload appeared self-imposed: a reflection of her own conscientiousness. She referred to part-time teaching as an "expensive hobby" and saw the extra workload which she carried to be a result of her 'part-timeness' rather than any small school factors. During the course of the research, Linda never gave the impression that she had a sense of completion or of satisfaction with her work.

In terms of teaching, Linda had a very structured approach, not surprising when the hours spent in preparation are considered. Class enquiry dominated her practice. The systematic observation confirmed this. However whilst the audience breakdown of these observations was similar to those of the teachers studied by Galton *et al* (1999, p.71) in both English and Science, an even greater proportion of time was spent by Linda in teaching the whole class: this amounted to some sixty per cent of interactions in Science.

Amongst the group of case study teachers, Linda stood out as devoting her whole time at school to her class, rather than having any obvious commitment to the wider running of the school. PRISMS teachers identified their work as special as they had a "greater involvement in the work of the school as a whole" (Galton and Patrick, 1990, p.38), yet Linda was not observed to either help voluntarily or be asked to carry out any wider duties, other than those involving her class.

George Patterson

George was a new appointment to the school in the September that research began in the school. He was observed teaching during the Spring Term, when he had been at Pear Tree School for just one term. George had taken early retirement from a neighbouring authority in the previous year, where he had been the head teacher of a primary school. He had a total of thirty one years of service as a teacher and his initial training had specialised in English and Geography.

George, at the time of observation in his class had a 0.2 teaching responsibility, all of which time was spent with the top junior class of Year 5 and 6 pupils. In the previous term however, when the researcher had followed Mike's work, George exchanged classes with Mike for one lesson each week in order to teach Music to the lower juniors. He was responsible for Music in the upper school, that is Years 3 to 6. During the period of observation, George taught Mathematics, Music and Design Technology.

Most of George's time was spent in the temporary classroom occupied by the Year Five and Six Class. Music lessons however, took place in the small school hall where the children sat on benches arranged in rows and, for these lessons, George based himself at the front of the room by the piano. The school was equipped with a selection of percussion instruments housed on a trolley in the hall which George used in his lessons each week, as well as an overhead projector which was used by George to display words to songs and rhythm patterns.

George was observed for four of the twenty days of observation in the Year 5 and 6 class. He verbally agreed to complete the Record of Teacher Time but claimed to have lost his copy of the schedule and was twice given a replacement. Despite reminders, George failed to complete the schedule and the researcher finally determined that he was avoiding its completion. Similarly, George agreed to giving an interview, but every time the researcher attempted to arrange a time to do this with him, he made himself unavailable. Data on George's work therefore only exists in the form of participant and systematic observation and from informal conversations with George. Over

Table G1: George's time before and after the school day, from 8.30 - 9.00 a.m. and 3.15 - 3.45 p.m.
(data derived from participant observation) expressed as both the total time observed in hours and
the proportion of all such observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL TIME OBSERVED BEFORE AND AFTER SCHOOL (%)
25. Preparation	1.60	55.49
22. Staff liaison	0.47	16.18
21. Co-ordinator role	0.28	9.82
29. Supervising children	0.27	9.25
27. Relaxation	0.22	7.51
23. Parental liaison	0.05	1.73
TOTAL	2.88	99.98

the four days of observation, George kept to the same timetable and his teaching could be seen to be 'typical' for that term as there were no 'unusual' events in the days such as the visit of outside speakers or extended assemblies.

The Working Week

An analysis of the entire working week was not possible as no data from either interview or a ROTT schedule were collected.

The School Week

George was observed for four days. He was observed teaching the subjects of English, Mathematics, Design Technology and Music. At all times, the class was engaged in the same subject and no mixed subject teaching was observed, therefore a Curriculum Complexity Ratio of 100:1 was obtained. Observations of George totalled 28.03 hours, of which, just over 65 per cent was lesson time in contact with the children in his class. The observations were from a possible total of twenty nine hours, and the lower total indicates that George, whilst being present in school at 8.30 a.m. on three days, arrived at 8.37 a.m. on the fourth and on all occasions left work before 3.45 p.m..

Before and After the School Day

George was observed for just less than three hours (2.88 hours) in the half hour periods before and after the school day: the coding of these data is detailed in Table G1. As has been mentioned, George was not in school for all of these periods and the nine minute difference between the shortfall in total time observed (0.97 hours) and the shortfall implied in Table G1 (1.12 hours) has occurred through rounding errors.

The following extract from 13th January, 1997 details the start of George's day from his arrival at school:

TIME	TEACHER ACTIVITY
8.30	George arrives at school and photocopies a worksheet for the morning. It is hand-written and concerns activities leading to the derivation of the formula for the area of a rectangle. Whilst the photocopier runs he talks to the secretary who is having problems with damp paper in her computer printer.
8.40	George looks through his post in his pigeonhole. It is almost totally comprised promotional leaflets on music resources, although there is also a copy of a letter which had been sent out to all children
8.48	George talks to Mike about the Technology scheme and his use of an idea from it with his class. Mike gives him advice about the best way to go about it and the materials to use
8.55	George goes over to the classroom and sorts his desk. He ignores the children who have come in early as it is raining
8.59	George stands at his desk and asks the children to get out "something useful". He waits for them to do this and sends a child to collect the register from the staffroom.

Non-Contact Time

As with all of the staff at Pear Tree School, George's non-contact time was restricted to periods when his class was in assembly and the headteacher did not require him to be present. Observations are summarised in Table G2. This averaged fifteen minutes each day over the four days of observation. Perhaps surprisingly, as Key Stage Two Music co-ordinator, George did not play the piano accompaniment in assemblies, this task always fell to the Key Stage One teacher. Also, it was the subject of some hilarity in the staff room that, prior to inspection week, all of the staff, and especially George who did not know any of the songs, attended assemblies so that they were familiar with the hymns which the children sang. Once again, during his free assembly time, preparation was the dominant category of activity, taking up 82 per cent of his time during these periods. This was also a time when George had opportunity to talk to other members of staff. During assemblies the child of the Jehovah's Witness religion stayed in the classroom where George spent most of his non-contact time, however, only two minutes were coded as 'Supervising children' as this was the only period when George directed her in any way. Some of this time was coded to be in liaison with other staff; this related to one occasion when George talked to the school secretary

Table G2: George's Non-contact time (data derived from participant observation) expressed as both total time observed in hours and proportion of such observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVED NON-CONTACT TIME (%)
25. Preparation	1.23	82.22
22. Staff liaison	0.18	12.22
1. Register	0.05	3.33
29. Supervising children	0.03	2.22
TOTAL	1.50	99.99

Table G3: George's Break and Lunch times (data derived from participant observation) expressed as both total time observed in hours and proportion of all such observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVED BREAKTIMES (%)
25. Preparation	3.05	56.67
27. Relaxation	1.03	19.20
28. Duty	0.65	12.07
15. Individual monitoring: SEN	0.47	8.67
29. Supervising children	0.10	1.86
21. Co-ordinator role	0.08	1.55
TOTAL	5.38	100.02

about amending the register which he had completed on the wrong page. On a separate occasion, George was recorded to be completing the register as he once again had completed it incorrectly.

Breaktimes and Lunchtimes

Breaktimes and lunchtimes over the four days of observation totalled 5.38 hours (Table G3), reflecting the fact that the morning break overran by an average of five minutes each day. Nearly nine per cent of this time was spent working individually with a child who George considered to be very able and who was working on a separate Mathematics investigation to the rest of the class: this was coded as working with a child with special needs as George had prepared individual work for the boy. A small proportion of this time was spent with the class as they completed work, with the lesson over-running into playtime, hence nearly two per cent was coded as 'Supervising children outside lessons'.

'Preparation' was the dominant code during breaktimes. However, nearly a third of all time spent in preparation during break and lunchtimes was from one occasion spent setting up a video recorder and watching the programme which he wanted the class to see that afternoon. Much of the remaining time which was coded as preparation was spent marking Mathematics work over the lunch hour.

George was detailed to be on playground duty on each morning that he was in school: over four days this should have totalled an hour of observations, however, 21 minutes of the hour were taken in a combination of supervising his class in lessons which ran over time, checking his post (coded as 'Co-ordinator role') and collecting his cup of coffee from the staffroom (coded as 'Relaxation'); during these periods, children were unsupervised in the playground.

Lesson Time

George was observed to be in contact with his class for a total of 18.26 hours. This was out of a time-tabled 20 hours although it must be remembered that Assembly time has been removed from this total. Lesson time over the four days was 14 minutes shorter than time-tabled, averaging 4.94

Table G4: George's Lesson Time (data derived from the coding of participant observation) expressed both as time observed and the proportion of all such observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVED LESSON TIME (%)
1: Register	0.67	3.65
2: Transition	0.90	4.93
WHOLE CLASS		
3: Instruction	1.03	5.66
4: Teaching	2.40	13.14
5: Story	1.42	7.76
6: Praise	0.28	1.55
8: Class Enquiry	2.83	15.51
9: One way Class Enquiry	0.60	3.28
	}8.56	}46.90
GROUP		
11: Teaching	1.45	7.94
12: Monitoring	0.10	0.5
	}1.55	}8.44
INDIVIDUAL		
13: Single Child	2.73	14.96
16: Mobile Monitoring	1.57	8.58
	}4.30	}23.54
17: Routine	1.02	5.57
18: Inert Supervision	0.48	2.65
19: Settling Time	0.28	1.55
22: Staff Liaison	0.15	0.82
25: Preparation	0.20	1.09
29: Supervising Children	0.15	0.82
TOTAL	18.26	100.00

hours each day. George was observed teaching the single subjects of Mathematics, English, Design Technology and Music as well as being engaged in routine matters such as taking the register. Observations are summarised in Table G4.

Just over forty minutes were spent taking the register: three minutes when his class were in assembly, 25 minutes when his class were reading quietly and 15 minutes when the class were solely attending to the register. As has been noted, assemblies accounted for 90 minutes of non-contact time for George; however, a further nine minutes were spent in moving the class from the classroom to the hall and waiting for the headteacher to take over their charge.

George began the school day by greeting the class and reminding them that they should have got out “something useful to do”. Registration could be a lengthy affair, up to eighteen minutes one morning as George completed it on the wrong page. These periods were not included in the analysis of ‘lesson time’ presented in Table G4, as the class were not formally given work to do and many would chat quietly or read magazines which they had brought from home to ‘officially’ read at playtimes.

Nearly a half of all observed lessons (46.90%) involved George teaching the whole class. Of all the teachers in the study, George spent the least amount of time in activities unrelated to the lesson in hand: less than two per cent of all lessons. Each subject area was approached differently by George. The extremes can perhaps be explained by the fact that the subjects were all so different in nature. Although George was only observed for four days, each lesson of the same subject had the same format. George did not differentiate for either the different year groups or by ability in any subject apart from Mathematics. In Mathematics lessons he gave a very able child different work to complete, and when other pupils had completed the class tasks, they too were given the tasks which the more able child was working on, as a form of extension activity.

Table G5: George Patterson, Proportion of observed times spent on activities in English lessons (4.10 hours); Mathematics lessons (3.47 hours); Design Technology lessons (5.55 hours) and Music lessons (4.63 hours)

ACTIVITY	ENGLISH	MATHS	CDT	MUSIC
1. Register	10.16	0.00	0.00	0.00
2. Transition	0.00	0.00	6.01	8.99
WHOLE CLASS				
3. Instruction	0.81	7.69	3.60	9.71
4. Teaching	8.94	7.69	4.50	32.73
5. Story	34.55	0.00	0.00	0.00
6. Praise	0.00	0.96	3.00	1.80
7. Test	0.00	0.00	0.00	0.00
8. Class Enquiry	12.60	25.00	10.21	19.06
9. One Way Class Enquiry	2.03	2.40	6.61	1.44
	}58.93	}43.74	}27.92	}64.74
GROUP				
10. Instruction	0.00	2.88	0.00	0.00
11. Teaching	0.00	0.00	13.51	15.11
12. Monitoring	0.00	0.00	0.00	0.00
	}0.00	}2.88	}13.51	}15.11
INDIVIDUAL				
13. Single Child	0.00	17.31	33.93	5.40
14. Reader	0.00	0.00	0.00	0.00
15. Special Needs	0.00	0.00	0.00	0.00
16. Mobile Monitoring	19.51	21.15	0.00	0.72
	}19.51	}38.46	}33.93	}6.12
17. Routine	2.03	9.62	9.31	1.80
18. Inert Supervision	0.00	3.85	6.31	0.00
19. Settling Time	3.25	0.00	0.00	3.24
22. Staff Liaison	1.22	0.96	1.20	0.00
25. Preparation	4.88	0.00	0.00	0.00
29. Supervising Children	0.00	0.48	1.80	0.00
TOTAL	99.98	99.99	99.99	100.00

English

The aspects of English which George was observed to teach were limited and they determined the types of activity which he engaged in. The high proportion of time coded as Register during English lessons is due to the fact that George would set the class the task of reading silently during registration. The class also listened to a story read by George each week and he would punctuate his reading with questions and it was these sessions which were largely responsible for nearly half of all English lessons to be coded as 'Story' and 'Class Enquiry'. George also was observed to set the class an assessment task of writing on the subject of 'Carnival'. This was because he had no knowledge of their standard of writing. This lesson involved some amount of instruction to the class on how the task was to be completed and class enquiry whilst the class brain-stormed their ideas and George wrote key words on the blackboard, followed by time spent in 'mobile monitoring': walking around the class as they worked, ensuring that the children were staying on-task and working neatly.

Mathematics

Observed Mathematics lessons were taught to the class as a whole. George planned his Maths work independently from Jean, who taught the majority of all Mathematics to the class. He worked from a list of topics which a colleague from another school had given to him. He developed the topics of area and perimeter during the weeks of observation as well as completing a lesson on long multiplication. The extract below demonstrates George's approach to teaching Mathematics with its emphasis on class enquiry which accounted for a quarter of Mathematics lessons. The observed lessons followed a broadly similar format: an introduction which re-capped upon previous lessons followed by instructions for completing worksheets before the class began work. Occasionally George interrupted the class to add teaching points or to ask questions, but would spend most of his time whilst the class worked walking around the class checking on their work and dealing with individual queries.

TIME	TEACHER ACTIVITY
9.18	George tells the class about the delay in assembly and gives out the sheets for the morning's maths work, telling them to read it through and to think about what it entails but not to begin working on it.
9.20	George sits at his desk and looks around to check that the class are reading the sheets quietly.
9.23	The secretary comes in to collect the register and George explains to her where he has made the mistakes.
9.25	George stops the class and talks to them about the sheet. He asks them questions about perimeter and area (largely revision from the previous week): What is area? What units do we measure area in? What is the perimeter? He asks for the area and perimeter of the shapes which he quickly draws on the board and discusses the use of cm and cm and the size of the squares on the paper and the implications. George asks for the answers from a selection of children who put their hands up.
9.33	George reads through the worksheet to the whole class.
9.35	The class start working. George walks around the class checking that the children are working in pencil and that they have no difficulties.
9.40	George stops the children from working and talks to them about the formula for working out the area of a rectangle. He asks them how they could go about working the area out without counting each square. Three children answer each one building upon the last one's answer until a clear explanation is given.
9.43	The children continue working and George walks around the class checking their progress. He occasionally comments on a child's work, but comments relate to neatness or the speed at which they are working.
9.47	A child from Mike's class tells George that the class can go over to assembly. George asks the class to line up at the door. He waits whilst they do so.
9.48	George leads the class over to the assembly hall and sits them down. Brenda, the headteacher, tells him that she will be all right with them and so George leaves the class
9.50	George returns to the classroom and looks at Sarah's work as she does not go into assembly.

CDT

George was observed over four Design Technology lessons. The first involved the class working individually on masks for the school concert. Whilst each child made their own mask, there were groups of children making the same type of mask and in this lesson George spent time working with each group. Very little group work took place in the remaining three observed lessons during which the class were involved in the design and construction of individual masks and head-dresses with the theme of Carnival. The first of these lessons, as introduction to the project, involved the class watching two videos about carnivals in the school hall: this accounts for the proportions of time spent by George both in transition, moving the class, and in inert supervision, sitting with the class whilst they watched the programmes. The remaining lessons were organised such that George spent much of his time dealing with individual children. These lessons were however punctuated by

George stopping the class and showing them interesting ideas or solutions to problems which pupils had thought of.

Music

TIME	TEACHER ACTIVITY
10.45	George and the class return to the classroom after playtime. He waits by the classroom door until the class settle at their desks and until they are quiet and waiting for instructions.
10.50	George tells the class off as they have been so noisy in their return to the class and because he has had to wait so long.
10.55	George lines the children up and leads them to the hall where they sit in three rows on the benches and chairs which have been put out by two pupils in the class at breaktime.
10.56	George reminds the class about the work they did the previous week, where they sang simple lines to a rhythm. He works standing at the piano and gets the children to listen to the lines of the song again: he sings and plays the piano asking them to listen carefully.
10.58	George gets the children to sing the lines: he sings them first, one line at a time, then the class repeat in unison. They put their hands up if they can think of different words to go with the rhythm that George plays and George uses their suggestion immediately and without question: three children do this.
11.14	George breaks from the singing. He explains to the class that a chord is a blend of several notes and he moves to the front bench where there are 2 groups of chime bars and a xylophone. He talks about these instruments: what they are made of and how they make notes and plays the individual notes which make up the chords explaining to the class.
11.20	George chooses children to play the chords together. He also chooses a 'conductor'. All of the class have a go at some activity, Altogether there are three change overs of chord players and four conductors. The children play their rhythm chord by chord with George accompanying on the piano. They have several goes and whilst they do so the rest of the class whisper the words. Each time there is a changeover George leaves the piano and helps the conductor and the players to be co-ordinated. He talks to the players, only talking to the rest of the class briefly such as "join in with the words this time" or "clap the rhythm this time"
11.45	George asks three children to tidy away and leads the rest of the class back
11.48	George asks the children to read silently. He looks at the Technology scheme and prepares for the afternoon lesson

All of the observed Music lessons took place in the school hall and followed the same format, building upon what had gone on the week before. The observer also saw George teach Music to younger classes and these lessons were the same in terms of format and content. Until George had been appointed, Music had not been taught following a scheme and George told the observer that he was starting with the basic principles for the children in all classes and would develop these through the year: the Year Six children were, he felt, at the same level, in terms of formal knowledge, as the

infant children. The extract from the field notes above give an illustration of one of his lessons which ran from 10.45 until 11.45 in the morning.

The field notes demonstrate the large amounts of teaching, both to groups and particularly the whole class and this seemed to be due to the fact that George was a specialist Music teacher and was confident in the substance of his lessons: going into detail regarding the ways in which the instruments sounded different notes.

Summary: the work of George Patterson

Whilst data for George were limited, certain points can be drawn out. Firstly, George was not observed to take any part in the wider running of the school. He did not contribute in any way which would have assisted the work of his colleagues or benefited pupils beyond his lessons. Whilst he had organised the school concert in the term prior to his appointment, he was not observed to undertake any work towards such a musical event during the period in which the researcher worked at the school nor did he help during Sports' Day, the swimming gala or school trips. His absence at both staff meetings and training days were further examples of his detachment from the school as a whole and despite the well known fact that the Key Stage One teacher would gladly have relinquished the duty of playing the piano during Assembly, George never took her place for this job. In many senses, George acted as a peripatetic member of staff, coming in to school to deliver set curriculum areas to pupils.

In terms of classroom organisation, George's lessons were largely determined by their content and the restrictions caused by firstly the available equipment and secondly by the fact that lessons had to be self-contained as George was only in school for one day a week. There was little or even no differentiation in either Technology and Music lessons. Further, the observer watched George teach Music across the entire Key Stage Two age range, and he delivered the same lesson to both the upper and lower junior classes. George's lessons were dominated by whole class teaching, a

reflection of the subjects which he taught. The ratio of whole class: group: individual teaching was 5.6: 1.0: 2.8.

Overall, there were no features in George's work which appeared to be a response to the fact that he worked in a small school. His work patterns were more easily explained by his one-day a week contract and the nature of the curriculum areas which he taught, especially the way in which he organised the teaching of Music. He was not seen to have any commitment to working 'beyond the bond' and when in school focused on his work for the day, being self-contained from the rest of the staff.

Rosemary Taylor

Rosemary had trained as a junior school teacher and her first appointment was in a junior school of four hundred pupils in the shadow of West Bromwich Albion football ground, where she had responsibility for teaching football. Falling rolls at this school meant that she moved after a year of service from this school: "in those days it was last in first out, except there were two of us and we had to toss a coin and I lost". Rosemary moved to another urban school within the borough with about three hundred pupils on roll and stayed there for three years; here there were many immigrant children particularly Italians and Caribbeans, yet no additional assistance. After this, Rosemary got married and moved to the town nearest to Haybarn School. She worked in the nearby new town in a junior school with four hundred pupils on roll. Rosemary saw the early part of her career to be considerably different to that which she followed when returning to teaching after having a family. She recalled that in these early years classes numbered up to forty four pupils. She broke from teaching for nine years during which time she raised three sons, although during this time she helped at the local junior school.

Rosemary had been appointed as a 0.2 teacher at Haybarn school in 1971 and had taught there for the following twenty five years. She was in hospital on the day of the interview and so missed this, however was still offered the job, as her main subjects during training had been called 'Countryside courses' and comprised Biology, History and Geography "and having been brought up in Somerset in the country and going to a country school, it was obvious that they thought I would fit in". By 1977, Rosemary's hours had risen to 0.9 of a week at this point, she said, "I felt that teachers would be on the scrap heap if they hadn't got a degree, so I looked around for a course and there was one at Leicester College: in-service, two evenings a week for three years, so I did it at the same time as I was teaching. Well, it was a long haul, but of course, the experience of being there and of thinking at my own level was a great boost and it really didn't seem a chore". She was awarded a degree in 1980, but in the same September, her hours were reduced to 0.3 of a week due to education cuts of the time. Rosemary applied for other jobs, but saw her ineptitude during interviews to be the reason why she was unsuccessful. In 1983, she responded to a call from the

county for teachers who would train to teach other teachers how to use computers and was chosen to be trained. This took nearly two years at local colleges. Following this, Rosemary was offered the temporary post of county co-ordinator for training teachers in the use of computers, to cover maternity leave. This post she found "terribly interesting", but she missed the children. On return to teaching, Rosemary felt that it had taken her a year to get used to "the slow pace in school". Since then, she had taught as a supply teacher in a variety of schools and had also worked for two days a week at Pear Tree School over an eight year period, from 1988 until 1996.

At the time of the study, Rosemary had a 0.5 teaching commitment: sharing the teaching of the class with Susan, the headteacher. Together they taught the Key Stage Two class which had twenty seven rising to twenty nine children spanning the four year groups; details of the class composition are given in the following table, with the figures in brackets indicating the class composition at the end of the study.

The class benefited from a classroom assistant who worked in the Key Stage Two class for ten hours each week. The classroom assistant assigned to the Reception and Key Stage One classes also came to the classroom for between half an hour and forty five minutes on two mornings a week: she heard the group of children who needed extra help in language and numeracy read until the special needs support teacher arrived to teach them. During the period of observation, the classroom assistant was on holiday for a fortnight and the special needs teacher was ill, again, for two weeks, thus reducing the amount of classroom assistance which Rosemary received.

The class was located away from the main school building in a 'temporary' classroom which had a small extension at the one end which was used for storage of equipment and for the main class computer which Rosemary used for her work. The classroom contained the usual school desks and chairs, the teacher's desk and chair, a wall mounted television, a stereo system and the schools music collection, racks of reading books a piano and telephone with an outside line. Pushed against each of the four walls were tables used for both display of children's models and books as well as working space for the other two class computers and the six word processors. One window wall had

been covered for display purposes and the other looked out onto a bank where some of the sheep, owned by one of the governors, grazed. Outside the classroom was a small garden shed used as a cloakroom by the class. There was no water supply to the classroom: water needed for lessons was brought over from the main school in a bucket and children sat on the step of the shed and washed up in buckets following Art lessons.

The classroom was removed at the end of the school year as the main building had been expanded to include two new classrooms and a library. The children moved in to the new class after the period of observation and spent the greater part of the final week of the summer term moving furniture, stock and the other contents to the new room. During this move, the observer helped to pack the contents of shelves and cupboards up. This revealed that Rosemary was a true hoarder of anything she felt was useful for her teaching: countless ice-cream tubs were moved filled with anything from empty matchboxes to plastic milk carton tops, none of which Rosemary allowed to be thrown away. The matchboxes became something of a joke with the school caretaker who also helped in the move. The researcher and caretaker had the job at the end of term to clear out the school garage and had found a four drawer filing cabinet full to the brim with empty matchboxes, which again, Rosemary would not allow to be thrown away, despite the fact that she had forgotten where they all were!

Observations took place during the summer term. As has been noted, the school buildings were being extended and Susan, the headteacher was frequently engaged in meetings with the architect and builders; this, combined with other commitments meant that Rosemary frequently taught the class for more than half of each week. The most important implication of this was that she taught Art during the period of observation, a subject usually left to Susan. Rosemary's comment on this was "If this continues for much longer, I shall have to find out something about it (Art)".

The two teachers worked largely independently and this was confirmed by Rosemary in the interview. She commented that she knew enough of that which Susan was teaching to be able to make links with her own work if they occurred and to use vocabulary which Susan had introduced.

Liaison between Rosemary and Susan was observed to be limited to the briefest of exchanges between them regarding the curriculum and some time spent discussing children with special educational needs. The exception to this was in the planning of the school trip, for which Susan and Rosemary worked closely together, sorting out the practical details, such as where they would eat lunch and trying to find the National Trust membership card.

Rosemary was regularly observed teaching the class Mathematics, aspects of English, Information Technology, History Art and Religious Education. Susan was observed to teach aspects of English and all of the Science curriculum. Despite the fact that Susan referred to Geography being taught, there was no evidence of this, either in the form of classroom displays or books or folders in the children's desks. The Year Six children had no memory of ever having worked with maps or atlases or of having studied their locality, or any other, or such topics as 'Rivers' or 'Earthquakes'. Whilst the memory of such children may be questioned, it seemed that, during that year at least, no Geography had been undertaken. Study of the Romans in History however had gone on through the whole academic year. An exchange went on between Susan and the Key Stage One class teacher whereby Susan 'minded' the Reception and Key Stage One children whilst the Key Stage One teacher taught the class music. Whilst the observer was working in the class, the main aspect of Physical Education which was observed to go on was that of swimming, whereby once a week the two lower year groups went to the local baths to be taught by the Reception class teacher; Rosemary remained with the class. On two occasions Rosemary taught country dancing to the class, Susan took the class out to play tennis for one lesson and the boys in the class went out to play football with a parent helper twice.

Assemblies took place in Rosemary and Susan's classroom, where the whole school gathered after morning break for four days of the week. Teachers took it in turn to take assembly, each responsible for it for one day of the week. Susan sometimes took assembly, but more often was observed to introduce the vicar who went on to lead the Friday service.

Table R0: Rosemary Taylor, Class Composition

YEAR GROUP	BOYS	GIRLS	TOTAL
YEAR 3	5 (6)	0	5 (6)
YEAR 4	4	6	10
YEAR 5	6	2	8
YEAR 6	0 (1)	4	4 (5)
TOTAL	14 (17)	12	27 (29)

Table R1: Rosemary's Working Week (data derived from the Record of Teacher Time) indicating the total time recorded on each activity in hours and the proportion of all entries which that represented

CODE	ACTIVITY	TOTAL TIME RECORDED (HOURS)	PROPORTION OF ALL ROTT ENTRIES (%)
multiple entry	TEACHING Mixed subjects	7.20	10.75
TE	English, Language, Reading, . .	6.20	9.25
TM	Mathematics and Number	3.65	5.45
TS	Science	1.35	2.01
TC	Art / Craft	1.30	1.94
TP	P.E. / Movement	0.90	1.34
TO	Other subject	0.65	0.97
		}	}31.71
PR	PREPARATION / MARKING Preparing and planning for learning .	6.02	8.98
PM	Marking	3.62	5.40
PO	Organising resources and trips . .	9.78	14.60
		}	}28.98
IS	IN-SERVICE TRAINING Staff meetings, informal consultation	2.02	3.01
IR	Reading of professional magazines . .	3.57	5.32
		}	}8.33
AP	ADMINISTRATION Discussion/consultation with parents	8.77	13.08
AS	Supervising children before . .	4.87	7.26
AL	Staff liaison outside school / K. S.	0.25	0.37
AW	Assembly / Act of Worship	0.52	0.77
AB	Breaks - free of work	0.65	0.97
AF	Breaks - not free of work	3.15	4.70
///	Registration, moving children . .	2.55	3.81
		}	}30.96
	TOTAL	67.00	99.98

Rosemary completed the ROTT schedule in a week when she taught for all ten sessions, despite her 0.5 contract. This week was unusual in nature: being completed towards the end of the summer term there were many school events that week, such as the annual swim place in the summer term and swimming gala. Observations also took place during the summer term when both national tests of the Year Six children and building work at the school which took Susan away from her usual teaching required Rosemary to teach on days which she was not usually in school: these days were included in the observation period.

The Working Week

The summary data of the ROTT completed by Rosemary are presented in Table R1 below. Rosemary completed the ROTT schedule in a week towards the end of the summer term. The week was very unusual in that it contained the school swimming gala, Parents' evenings and a class trip; this resulted in Rosemary being required to work a full week in school, rather than her usual 0.5 teaching commitment. The ROTT entries indicate that Rosemary worked a 67 hour week. Her weekend work totalled 9.2 hours and involved preparing lessons and resources, marking work and reading documents.

Direct teaching accounted for 31.7 per cent of Rosemary's working week. Preparation and Marking were recorded to take up nearly thirty per cent (28.98%) of Rosemary's week. However, more than half of this was coded as 'Organising resources, trips . . .' and much of this was undoubtedly due to the fact that Rosemary took the class on a school trip on the Friday in which the ROTT was completed. The preparation: teaching ratio was 0.91:1, yet this rose to 1.05:1 if the reading of professional journals is included in the total for preparation.

Administration took up a further thirty per cent (30.96%) of Rosemary's week, but again, the individual circumstances of the week, namely two Parents' Evenings inflated the proportion of time coded as 'Discussion / consultation with parents': together these amounted to nearly nine hours of work, which in turn must, almost certainly, have led to a longer than usual working week. Informal

discussion with Rosemary about the ROTT revealed that she had taken less time than usual in preparing for teaching, giving the class work which was easy to plan and mark that week because of the time that the Parents' evenings took up.

Rosemary detailed 3.8 hours to be Breaks, either working or free of work. In a week, 7.5 hours were time-tabled as breaks, thus, for some of these periods, Rosemary entered more specific work codes. More than eight per cent (8.33%) of Rosemary's time was recorded to be spent either in liaison with colleagues or in staff meetings, or in professional reading, of which the latter was the dominant activity. No other activities were recorded by Rosemary.

Work outside school hours

Rosemary estimated some twenty hours were spent outside school hours each week in planning, collecting materials and assessing children. She also emphasised the extra work which she did was in the main the result of being a part-time teacher: "It must be about twenty hours and I'm contracted to teach for sixteen hours and forty minutes at the moment. You sort of think "I'm not in this afternoon, I think I ought to prepare this or get this sorted out."

The School Week

A detailed breakdown of Rosemary's teaching week, that is from 8.30 to 3.50, as it was recorded on the ROTT is given in Table R2. It must be noted that Rosemary made entries which indicated her presence at school between these times each day, with the exception of one morning when she recorded herself as having 'missed' three minutes, arriving at school at 8.33 a.m.. Over the period of observation however, Rosemary was noted to rarely arrive at school before 8.45 a.m. and to often leave before the end of observation at 3.50 p.m.

The Curriculum Complexity Ratio (CCR) of Rosemary's recorded week was 277.2% if the full week is taken into consideration, yet Friday was entered as a school trip, during the entirety of which Rosemary recorded herself as teaching between four and six subjects

Table R2: Rosemary's School Week (data derived from the Record of Teacher Time)

indicating the total time recorded on each activity in hours and the proportion of all entries which that represented

CODE	ACTIVITY	TOTAL TIME RECORDED (HOURS)	PROPORTION OF ALL ROTT ENTRIES (%)
multiple entry	TEACHING Mixed subjects	7.20	19.66
TE	English, Language, Reading . .	6.20	16.93
TM	Mathematics and Number	3.65	9.97
TS	Science	1.35	3.69
TC	Art / Craft	1.30	3.55
TP	P.E. / Movement	0.90	2.46
TO	Other subject	0.65	1.78
		}21.25	}58.03
IS	IN-SERVICE TRAINING Staff meetings, informal consultation	1.52	4.14
PR	PREPARATION/MARKING Preparation and planning for learning	1.20	3.28
PM	Marking	0.60	1.64
PO	Organising resources and trips	2.63	7.19
		}4.43	}12.11
AP	ADMINISTRATION Discussion/consultation with parents	0.40	1.09
AS	Supervising children before . .	1.88	5.14
AL	Staff liaison outside school / K.S.	0.25	0.68
AW	Assembly/Act of Worship	0.53	1.46
AB	Breaks - free of Work	0.65	1.78
AF	Breaks - not free of work	3.15	8.60
///	Registration, moving children, . .	2.55	6.96
		}9.41	}25.72
	TOTAL	36.61	100.00

Table R3: Rosemary's time before and after the school day, from 8.30 - 9.00 a.m. and 3.20 - 3.50 p.m. (data derived from participant observation) expressed as both the total time observed in hours and the proportion of all observations which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL TIME OBSERVED BEFORE AND AFTER SCHOOL (%)
1: Registration	0.03	0.61
2: Transition	0.08	1.53
13: Individual - Single Child	0.03	0.61
17: Routine	0.05	0.92
19: Settling Time	0.06	1.23
20: E.A. Liaison	0.03	0.61
22: Staff Liaison	0.25	4.60
23: Parental Liaison	0.45	8.28
25: Preparation	2.72	50.00
29: Supervising Children	1.72	31.60
TOTAL	5.42	99.99

simultaneously. When entries for this rather exceptional day were removed from the calculations, the CCR fell to 113%.

The Teaching Day

Observations ran from 8.30 to 3.50 on those days when she was teaching in both the morning and afternoon. On four occasions, Rosemary was only responsible for teaching in the morning and on these days, observations from 8.30 to 12.00 were coded. Notably, no observations were made of Rosemary either in her role as subject co-ordinator or of her attending staff meetings. Teaching and preparation accounted for over 75 per cent of observations.

Before and After the School Day

Observations before and after school are summarised in Table R3. The time for which Rosemary was observed before and after the school day totalled less than six hours (5.42 hours), from a possible total of ten hours. On the ROTT however, Rosemary recorded that she was routinely in school for the whole of these periods. This discrepancy could be explained in two ways. Firstly, Rosemary did indeed arrive at school earlier than usual and leave later during the week in which she completed the ROTT, or secondly, this is an example of 'exaggerated' recording by the teacher.

The majority of time before and after school was spent in preparation and supervising children. The location of the classroom and building work going on at the school meant that the children came into the school through the stock cupboard at the end of the class and rarely carried on through to the playground. Margaret's time was therefore largely divided between sorting out resources for the day's lessons and dealing with children who, for example, had brought in items to show her. At the end of the school day the children spent a similarly long time to leave the classroom; Rosemary would wait at her desk whilst they queued to get into the shed outside the class where their coats were kept. Parental liaison was the third most frequently observed activity. This seemed to be, in part related to the time of year as they came to see both about appointments for Parents' Evenings and to volunteer to help on the school trip and at the swimming gala. The

remaining enquiries were from the parent of two children recently moved to the school who wanted to be reassured that they were settled.

The remaining time was taken with a variety of different activities, such as taking the register and settling the class, which reflected a slightly earlier start or later finish to the school day.

Non-Contact Time

Rosemary was observed for 3.2 hours during assemblies which she did not attend. If the weather was fine, this time was treated by the staff as an extension of breaktime and so they would often continue to chat in the school kitchen or on the benches on the field, thus accounting for the fact that a total of nearly three quarters of an hour during these periods was coded as relaxation. Over the remaining time, amounting to two and a half hours, or more than three quarters of the total (78.12%) Rosemary spent either preparing for the following lesson by collecting resources or, more frequently, marking work. Because the school assembly was held in the Key Stage Two classroom, Rosemary would use the store cupboard at the end of her classroom to mark the work.

Breaktimes and Lunchtimes

Most notably, breaktimes extended more than four hours (4.43) beyond the formally scheduled times. This was certainly influenced by the fact that it was the summer term and with the good weather the staff sat out on the school field. Break and lunchtime observations are summarised in Table R4

Rosemary worked through much of her lunchtimes. The fact that, unless it was sunny, teachers would gather in her classroom for coffee at breaktimes, restricted her from doing work in these periods and so she spent these times chatting to the other staff. She also commented informally, that being only part-time and therefore not always staying for lunch made her detached from the goings-on in the school, and so it was useful to talk to the other staff at breaktimes. The hour spent in staff liaison was, in fact, a complete lunchtime prior to the school trip which Rosemary spent in conversation with Susan, the headteacher, finalising arrangements for the coaches, times of

Table R4: Rosemary's Break and Lunch times (data derived from participant observation) expressed as both total time observed and proportion of all break and lunchtimes

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVED BREAKTIMES (%)
22: Staff Liaison	1.00	5.74
25: Preparation	7.68	44.07
27: Relaxation	6.20	35.56
28: Duty	2.50	14.34
29: Supervising Children	0.05	0.29
TOTAL	17.43	100.00

Table R5: Rosemary's Lesson Time (data derived from the coding of participant observation)
expressed both as time observed in hours and the proportion of all observations which that
represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVED LESSON TIME (%)
1: Register	0.88	1.95
2: Transition	1.48	3.28
WHOLE CLASS		
3: Instruction	1.95	4.32
4: Teaching	0.11	0.24
5: Story	0.33	0.73
6: Praise	0.70	1.55
7: Test	0.60	1.33
8: Class Enquiry	2.75	6.10
9: One way Class Enquiry	0.17	0.38
	}6.61	}14.65
GROUP		
10: Instruction	2.90	6.43
11: Teaching	4.85	10.75
12: Monitoring	4.12	9.14
	}11.87	}26.32
INDIVIDUAL		
13: Single Child	8.22	18.23
14: Reader	0.58	1.29
15: Special Needs	1.68	3.72
16: Mobile Monitoring	3.30	7.32
	}13.78	}30.56
17: Routine	3.43	7.61
18: Inert Supervision	1.42	3.15
19: Settling Time	0.80	1.77
20: E.A. Liaison	0.28	0.62
22: Staff Liaison	0.43	0.95
23: Parental Liaison	0.10	0.22
24: Other Liaison	0.40	0.89
25: Preparation	1.97	4.37
29: Supervising Children	0.25	0.55
30: Other	0.33	0.73
31: Assembly	1.07	2.37
TOTAL	45.10	99.99

departure and arrival and also searching for the school's National Trust card which would guarantee a discount on entry.

Lesson Time

45.10 hours of lessons were observed. Table R5 summarises the data derived from these observations. Table R5 summarises the data for lessons where subjects were observed for more than two hours.

Over all observed lessons, what is notable is the relatively high proportion of time devoted to group teaching: over a quarter (26.32%) of all. In turn, whole class teaching took a relatively small proportion of Rosemary's time during lessons: less than fifteen per cent (14.65%).

As with all of the teachers in the study, there were differences in the way in which she organised her time for each of subject area. Rosemary acknowledged that her teaching changed according to the subject. She saw herself as teaching 'topic work' of History and Geography as a whole class introduction with following activities being differentiated by age or by what Rosemary termed "outlook": that she expected more from the older and therefore more able children in the class. For Mathematics, Rosemary considered that she organised the class mainly in groups or through individual teaching, with groups being decided by either age or ability, however, she spoke of the individuals who did not fit into any group. English teaching was organised in different ways according to the aspect being taught: "We can all start off all the same if it's story-writing, but different ages know they have to put in different types of punctuation and things like that". Information Technology was taught in different ways, however for much of it Rosemary saw herself as teaching a group a single aspect at a time.

It must be noted that Rosemary's class was characterised by the fact that there were always one or two children working on the word-processors. They were able, on the whole, to work independently and placed no demands upon Rosemary as they would ask children known to be capable for help if necessary.

Table R6: Rosemary Taylor, Proportion of observed times spent on activities in English lessons (6.00 hours); Mathematics lessons (9.35 hours); Art/CDT lessons (3.22 hours); RE lessons (3.22 hours) and Mixed subject lessons (14.27 hours)

ACTIVITY	ENG	MATHS	ART/ CDT	RE	MIXED
1. Register	0.00	0.00	0.00	0.00	0.00
2. Transition	0.83	0.53	3.11	1.55	4.91
WHOLE CLASS					
3. Instruction	3.06	7.31	9.84	5.18	2.69
4. Teaching	0.00	0.00	0.00	2.07	0.00
5. Story	5.56	0.00	0.00	0.00	0.00
6. Praise	1.39	0.89	0.00	0.00	2.10
7. Test	2.22	4.99	0.00	0.00	0.00
8. Class Enquiry	0.00	5.88	9.84	17.62	9.23
9. One Way Class Enquiry	0.83	0.00	0.00	2.59	0.00
	}13.06	}19.07	}19.68	}27.46	}14.02
GROUP					
10. Instruction	10.00	3.57	1.04	1.04	9.93
11. Teaching	11.39	5.88	0.00	0.00	24.77
12. Monitoring	3.61	5.53	5.70	0.00	3.27
	}25.00	}14.98	}6.74	}1.04	}37.97
INDIVIDUAL					
13. Single Child	21.39	34.22	0.00	6.74	23.83
14. Reader	9.72	0.00	0.00	0.00	0.00
15. Special Needs	2.50	14.08	0.00	0.00	1.52
16. Mobile Monitoring	5.28	3.21	40.41	0.00	5.26}
	}38.89	}51.51	}40.41	}6.74	30.61
17. Routine	10.28	7.66	20.21	2.59	7.59
18. Inert Supervision	0.00	2.14	0.00	13.47	1.05
19. Settling Time	3.33	1.60	2.07	0.00	1.17
20. E.A. Liaison	0.00	0.53	0.00	0.00	0.58
22. Staff Liaison	2.22	0.53	0.00	0.00	0.23
23. Parental Liaison	0.00	0.00	0.00	0.00	0.00
24. Other Liaison	6.39	0.00	0.00	0.00	0.00
25. Preparation	0.00	1.25	7.77	47.15	1.87
27. Relaxation	0.00	0.00	0.00	0.00	0.00
29. Supervising Children	0.00	0.18	0.00	0.00	0.00
TOTAL	100.00	99.98	99.99	100.00	100.00

Rosemary differed from the other teachers in the study in that she would regularly work for long periods of time with individual children and often they would work on a task or problem which was individually tailored to the child in question. During these periods, she would be involved in close questioning of the child about the task which he or she was engaged in: for this reason, time coded as working with a single child was more usually a sustained interaction, yet with other teachers this coding was usually more brief: a response to a query or instructions on how to proceed. In Rosemary's case, the proportion of time spent working with individual pupils reflected time spent in individualised teaching. The interviewer commented upon Rosemary's extended questioning of certain children, whilst the rest of the class continued to work on sometimes quite challenging tasks unsupervised. It was clear that Rosemary was aware of this in her teaching, and she commented "I often wonder if I waste a lot of time being with individual children in the lesson".

English

A quarter of Rosemary's time when the class was doing English was spent in working with groups. This large proportion of time reflected the fact that the class followed a scheme for the comprehension elements of English whereby they were divided into groups according to reading age, with each group working together on an exercise of reading, discussion and answering questions. Rosemary's made her role during these lessons be one of working with one group and leading them through the tasks. The high proportion of time spent in routine matters was also linked to these lessons as Susan also set the class these exercises and invariably text and exercise books were difficult to find, with children being unable to remember to which teacher they had given their book to. These lessons took place on mornings when the classroom assistant and parent governor were in the class who each worked with a group. The part-time Special Needs teacher was time-tabled to work with a low ability group during these lessons; during the observation period, she suffered both a burglary and illness and so she was not always present.

Whole class teaching was least frequently observed during English lessons. It largely comprised periods when Rosemary read a story to the class and when she gave them their weekly spelling test or just when she gave the class instructions for the lesson. Individual teaching

accounted for nearly forty per cent of English lessons. This figure was inflated by the fact that these were the only lessons in which Rosemary heard children read.

Mathematics

Mathematics was Rosemary's specialist subject. Whilst the class were all placed on a scheme, Rosemary more frequently gave them tasks not related to the scheme. Scheme work was observed only on two days when Rosemary was working extra time to provide cover for Susan. More frequently, Rosemary set groups of children tasks to complete individually. The groups were usually organised according to the stage which each child was on in the scheme, although this was largely decided by the year group which each child fell into. On one occasion children worked in very flexible groups, working individually on certain tasks and then regrouping as they finished in order to complete other tasks. This lesson was investigative and involved games and puzzles. Tests on multiplication tables were daily but each lasted only one minute. Each child had started at a common point: learning the two times table and moving on when they could complete a sheet with twenty questions on it in the given time. Because of the organisation required for the individual groups, Mathematics lessons were characterised by relatively large proportions of time spent in giving instructions to the class and in dealing with the routines of distributing equipment.

Art / CDT

Rosemary taught Art only when she covered for Susan. This was observed for three lessons, although it became a regular event towards the end of the period in Haybarn School when Susan was attending meetings regarding the building work at the school. Rosemary commented informally, "If this goes on for much longer I shall have to find out what I am talking about!". The lessons all concerned colour mixing with paint. They were characterised by large proportions of time spent by Rosemary in mobile monitoring: walking about the class and checking the children's work and spent in routines: Rosemary supervising the class whilst they got out the equipment and put it away. Together these two categories accounted for more than sixty per cent of the lessons. The routines of working with paint were made more time-consuming as there was no plumbing in the classroom:

the class had to wash up their palettes and brushes in a bucket of cold water as well as having to mix their paints with water from the bucket.

Religious Education

Observed Religious Education lessons were very different in nature to all other curriculum areas taught by Rosemary. The class watched a video each week. Rosemary organised the children to sit and take notes whilst watching the television; they would have questions set to answer. Whilst the programme played, once the class were settled, Rosemary left the class and went into the stock cupboard at the end of the class to complete marking or to work on her computer. A Year Six child would rewind the video and the class would watch for a second time, before Rosemary returned to the class to end the lesson with a class discussion followed by either group discussions between the children or a period when the class completed a short written summary of what they had learnt. For these reasons, nearly half (47.15%) of the observed R.E. lessons were coded in preparation, to represent the periods when Rosemary was out of the class and more than ten per cent (13.47%) were further coded as inert supervision, most of which represented the time when she sat and waited to see that the class had settled before leaving the room. Thus, nearly two thirds of Rosemary's time (60.62%) during the observed R.E. lessons was detached from the work of the class.

Mixed Subjects

The category of Mixed Subjects comprised both periods when more than one distinct subject was being taught at a time and also when Rosemary taught Topic. The class worked on two topics during observations. Firstly, that of 'The Romans' and secondly, a project about the farming year and the crops and livestock in the fields surrounding the school. The class learnt about the Romans for the entire school year and the topic extended beyond the theme of Roman Britain and included all aspects of life in the Roman Empire as a whole. It was clear that there had been single subject History lessons on this topic, but for the period of observation, the class worked in groups, with each group completing a different task. The groups were those used in English, based largely upon reading age, with the exception of the Year Six children who worked separately. The topic on the

farming year was ongoing, only covered intermittently and detached from the rest of the curriculum. When the class was engaged in topic work, Rosemary spent much of her time dealing with individual children. This was the case for all but the lesson on the farming year, when, during the walk across the fields, Rosemary engaged in whole class enquiry, asking the children, for example, what they could see and what had changed since their last visit.

When the class worked in groups, each group engaged on a different curriculum area, Rosemary would sit and work with one group for much or all of the lesson whilst the rest of the class worked independently of her, contributing to the nearly forty per cent of time (37.97%) in these lessons spent working with groups. Rosemary was most often observed to work with either Year Six pupils or with groups working on computer skills during these periods. The work with Year Six involved lessons where Rosemary worked with the pupils on revision for the end of Key Stage testing and on the publication of the school newspaper which was produced each term.

Comparison of ROTT Data and Observational Data

The overall proportions of lesson time spent teaching single and mixed subjects as were observed and were recorded, are similar (see Table R7). However, the distribution of time spent on individual subjects differs greatly. This is in part due to the differences in the timetable in the week of the ROTT schedule: less mathematics was recorded in that week as the class missed their lesson on the day of the school trip. Rosemary recorded a greater proportion of time spent in teaching P.E. than had been observed. During the ten days of observation, Rosemary taught country dancing once, yet in the week in which the ROTT was completed, Rosemary was involved with the children during the swimming gala. The national tests had been completed by the time that Rosemary completed the ROTT yet during the observation period, she came into school and worked with the Year Six children firstly in revising for the tests and secondly, administering them.

Across all categories there was also some degree of agreement between observations and entries on the ROTT schedule (Table R8). In both, teaching accounted for more than half of her

Table R7: Proportion of Rosemary's time spent teaching different curriculum areas:

Comparison of Observational and ROTT data

SUBJECT	PROPORTION OF ALL LESSONS OBSERVED	PROPORTION OF TEACHING ENTRIES ON ROTT
SINGLE SUBJECT TEACHING		
Mathematics	12.99	9.97
English	8.34	16.93
Science	0.00	3.69
National Tests	7.36	0.00
Art / Design Technology	4.47	3.55
R.E.	4.47	0.00
History	1.76	0.00
P.E.	0.74	2.46
Other	0.00	1.78
	}40.24	}38.37
MIXED SUBJECT TEACHING	19.82	19.66

Table R8: Comparison of Observational and ROTT data on the proportion of the total time spent on

All Activities during Rosemary's School Week

ROTT ENTRIES	% OF ALL ROTT ENTRIES	OBSERVED ACTIVITIES	% OF ALL OBSRVNS
Teaching	58.03	3-19: Teaching	54.67
Preparation	12.11	25: Preparation	23.05
Staff Meetings, informal . .	4.14	22: Staff liaison	2.42
Staff liaison outside school / KS	0.68	24: Other liaison	0.57
	}4.82	20: E.A. liaison	0.45
			}3.44
Discussion with parents	1.09	23: Parental liaison	0.79
Assembly	1.46	31: Assembly	1.53
Supervising children before	5.14	29: Supervising children	2.90
Registration, moving . .		1: Registration	1.32
	6.96	2: Transition	2.25
			} 3.57
Breaks - free of work	1.78	27: Relaxation	5.83
Breaks - not free of work	8.60	28: Playground duty	3.59
Other Activities	0.00	30: Other Activities	0.73
TOTAL	100.00	TOTAL	100.00

time during the school day. The most significant difference was between the proportion of time recorded to be spent in preparation and that which was observed: more than nine per cent more of observed time than recorded time, and this was largely accounted for by the following two reasons which together make up the shortfall in recorded time. Firstly, the fact that Rosemary used the general code of 'Breaks not free of work' during breaktimes, whereas observations were coded more accurately by detailing the time which Rosemary spent in preparation and marking. Secondly, observations revealed that Rosemary spent time in preparation during lessons, particularly in R.E. where nearly half of her time was spent in this way.

Summary: the work of Rosemary Taylor

Throughout Rosemary's career she had taken opportunities to continue her training. This distinguished her from the other teachers in the study. Despite being close to retiring, she was still reflective about her practice: an attribute which was noted by Linda at Pear Tree School who had commented informally that Rosemary had "always thought deeply about her teaching".

Rosemary's teaching was distinctive from the other teachers in the study in that she set more differentiated work and individualised tasks. This could be interpreted as a response to having four age groups within the class. It was notable that she was still able to organise lessons in most areas of the curriculum which were solely differentiated by outcome, despite the four year spread of ages. The presence of classroom support staff helped Rosemary to work with pupils without disturbance, yet they received little direction and were not required to give feedback. In this sense, the added assistance was used with the primary function of helping Rosemary work rather than helping pupils.

Whilst Rosemary spent periods in preparation even during lesson time, the designated non-contact time was treated by herself and all other staff as an extension to breaks rather than an opportunity to complete further work. She had explained during her interview that she felt she lacked opportunity to keep up with school events but these periods were spent chatting with

colleagues about non-school matters and so it may have been that the isolation was on a personal rather than professional level.

With pupils spanning four age groups, the effect of school size should perhaps had a greater influence upon Rosemary's work. Whilst she organised her teaching with more of an emphasis on group and individualised work than the other teachers in this study, the evidence suggested that her personal style influenced this at least as much as the spread of children in the class.

CLASS TEACHER INTERVIEWS

This section is divided into the main areas of discussion which the interview questions raised. The questions were formulated with the following purposes:

- i. To gain further information about the nature and quantity of work which teachers completed outside school hours and the periods of participant observation. Presentation of these data have been included in Chapter 4.
- ii. To find why teachers organised their teaching and classes as they did, and the degree to which the mixed age groups affected these.
- iii. The delivery of the National Curriculum and the subject expertise of individuals were explored as they linked directly to the issue of being in a small school with only a limited staff.
- iv. To establish how the teachers viewed working in a small school and what they perceived the defining characteristics to be. The following discussion also includes the teachers' comments upon part-time teaching.
- v. The impact of the researcher in the classroom was a major consideration in the research design process and at following the period of participant observation, the opinions of the teachers themselves were the only means of judging the extent of this. These data are presented in the final chapter.

Classroom Organisation and Differentiation

Mike discussed the ways in which he differentiated the work for his class and revealed that he used different criteria for different subjects: English by year group or reading ability; Mathematics by ability and Science by year group. In other subjects such as Religious Education, he noted that he expected more mature responses from the older year group. P.E. was also differentiated by year group. He explained, "I tend to let the Year Fours be in charge more so that they actually organise it, so they sort everyone out, and the Year Three just concentrate on getting themselves organised (laughs)". Planning was seen as the most difficult aspect of having two age groups within a class. It was not only the ability range, but also the level of maturity of his class

members, particularly in the sense of the language which Mike used when talking to his class. Mike noted that out of habit he had pitched his conversation to the Year Four children in his class, but more recently, he acknowledged, he had learnt to direct his talk to all of the class. He acknowledged, "I'm a bit more relaxed, I find it easier to talk to the, to talk across the board, rather than, I think I used to probably go for the older ones. You know, they seemed a bit more interesting to talk to".

The mixed age in the class was not seen to be a great problem by either Jean or Linda and they saw "mixed ability" to be a better term to describe their class. Linda considered that the same range of ability would exist in a single aged Year Six class and Jean agreed that this was certainly the case in terms of reading age. Jean felt that she was able to stretch younger class members, by giving them Year Six work.

The close working relationships of staff and extra knowledge of pupils, gained from working with them over two years were seen by Linda and Jean to be the key to being able to successfully assess their work and plan their learning, Jean said, "It helps knowing the children so well" and Linda expanded upon this, "Yes, because you know what they are going to get on to, on with, what they can produce and you know whether it's a good piece of work for them or not . . . we have them for two years and yes, because we are a small school we discuss them in the staffroom". Linda talked about differentiation, "In English, in their phonic work they are doing all different books at different levels. Written work I do as a class, but then I expect differentiation by outcome and as I mark their work, if it's a child who perhaps has a phonic skill that they haven't acquired then I will speak to them individually so I might at the end of marking a story speak to somebody about 'bler' and somebody about the use of speech-marks, so it comes out when I've marked it really, unless of course it comes up when I'm going around and I spot it and then I deal with it. I think that's how I differentiate in English" .

As a group, the teachers considered that their classroom organisation was determined primarily by the curriculum area being taught. Whole class teaching was favoured by Mike as a means of starting and ending a lesson yet he viewed the most effective way to plan practical subjects

and manage resources to be through groupwork. Rosemary however introduced topic work and creative subjects through whole class teaching yet favoured groupwork and individual teaching for all of the core subjects. All teachers saw themselves as using different means of differentiation according to the subject being taught: year group, reading age, ability and outcome were all used. Close relationships with the children throughout their time at the school were seen to have a positive effect upon their learning.

The notion that these teachers would view the mixed ages within each class to be the main influence upon the planning and delivery of their work was largely unfounded. Ability of pupils was their main consideration when planning lessons and the spread of ability was not seen to be greatly different to that which would be found in a single age class.

Delivering the National Curriculum

OFSTED concluded that “as with the majority of schools, small schools have moved towards a subject-based curriculum” (OFSTED, 1999a, p.84). The comments of the teachers in this study focused upon strategies for delivering individual curriculum areas and indicated that they too had moved towards viewing the curriculum in terms of separate subjects.

The National Curriculum was welcomed by both Linda and Jean for both their own planning and for the children. For the teachers, they liked the guidelines within which they had to work, in Linda’s words, “because it gives you guidelines to work . . . to work by. You don't have to think "What topic am I going to do in History?" because it's there, laid out, you've got a limited choice, so in that way, yes, it does help” and for the children they approved of the common content and progression, as Jean said, “if they go on to a different school, you know they are going to have covered only certain subjects”. Linda's was concerned that there was still too much content in the Science programme: "It's a constant fight to get it done, especially the practical work and I think some of the things they expect us to do are unrealistic" Jean reinforced this, "You squash it in but you can't all . . . I mean, I can't cover it to the depth I want because there's too many things to try and

cover. And you've got to research it all". Linda spoke of the tensions in trying to cover the Science curriculum, particularly in practical work "In Science it's generally accepted, I've been on courses and they've said you can't possibly tackle everything in depth, so maybe you will only do one subject in depth and another you will just pick out the basic points you want to cover . . . and you have to accept that's how it is. . . If you start practical work, it can take a month just to do a little test: plan, organise and all that. . . you can't actually cut back on that very well. You can do it with them, show them and get it done in a lesson, but they are really required to do it themselves. In fact they are really required to do it individually!". Preparation also included researching of subjects. Linda acknowledged that with recurring topics, even though it was not just a matter of repeating lessons the amount of preparation required had reduced, "We are getting banks of material in school and you can just draw out what you did two years ago. But then, I've done it and put notes on it and neatened and modified where it could be improved, so it's not a straightforward system of taking out last time's work."

Rosemary saw the National Curriculum as having had an effect both within the school and nationally. She saw it as having made teachers reflect upon their practices: "It wasn't a case of well, I'll think about that next term, it was a case of well, it's here and I've got to think about it now". She remembered her first reaction to the National Curriculum as being "Oh yes, this could be quite exciting and I think I was amongst the minority". At Haybarn School, she saw there being more continuity and progression because there were official "guidelines". The term 'guidelines' was used by Rosemary to describe the revised curriculum following the Dearing Review. The "old orders" were seen by her to contain too much to be able to manage and she felt that too much pressure had been put on teachers to "take in" everything at once: subject areas should have been introduced one at a time, starting with English as, in her view, that was the subject that teachers had been trained to think about, followed by a second core subject, "and by the time the third core subject came in, it would just have been an ongoing thing and everything else would just have followed on naturally"

Rosemary felt that there was a greater content in the Mathematics curriculum than in other areas, such as Science. Further there were problems with the levels between subjects "It seems to me

that children can reach a certain level in science where they are expected to have maths on a par with it and yet they are not supposed to have reached that Maths level. there's such a thing as graphs with the two lines on one graph. well, that comes a lot later in the Maths curriculum than it does in the Science, so I think that the authorities who have been sitting in their little ivory towers need to do a lot more talking to each other and collating to see whether it all matches"

Rosemary hoped that she did not compromise the depth to which she taught the content of the curriculum in order to fit it all in. However, she said that sometimes, in the run up to SATs tests with the Year Six children she worried that "those poor children, they will be sitting there and they won't have seen the word 'percentages' or the sign, so you think I'd better introduce that to them so that they don't feel so miserable" and that they know nothing". She went on to say that "it's unfortunate, the way its done, that if you are one of these children who do not have the ability to go beyond Level three, you have to sit with a paper where all these Level five questions are, which must be like a foreign language to you. . so at that idea I'm afraid I do sort of do this, which goes against the grain, but I try to do what I think is the best for the child: his Maths may not be better for it, but he may well think "Oh yes, I know that"

The National Curriculum was seen by all teachers to have had positive effects, both nationally and within their schools. It gave a framework within which to work. Problems were seen to exist still, firstly because content was still too great, particularly in Mathematics and Science and secondly because there were problems in terms of mismatch between the levels for different subjects, again particularly in Mathematics and Science. Generally there was very little that staff felt that they lacked the confidence to teach.

The teachers' concerns regarding content overload in the National Curriculum leading to "depth and quality as being sacrificed to achieve coverage" (Webb and Vulliamy, 1996, p.10), were similar to those of teachers in schools of all sizes. The interview data showed that to the teachers in this study, these worries regarding the design and content of the National Curriculum orders were of far greater influence than any problem of delivering a statutory curriculum to a mixed-age class.

Subject Knowledge

In terms of confidence, both Jean and Linda only commented on their wariness to teach Information Technology. Firstly, the children were seen by Jean as knowing more than she did, also she found it difficult to apply her knowledge to different machines and Linda found that she did not have the time to consolidate her knowledge. I've never had any input from anywhere to tell me how to teach it properly, how to do it. I've thought about going on courses but having talked about it - don't bother they need a lot of consolidation, yes, and we don't have the time". I.T. was the only subject in which lack of expertise was admitted to, however commented that researching topics in preparation for teaching took a great deal of time, indicating perhaps that there were gaps in their knowledge in other areas. Later in the interview Jean also noted "You have got a limited specialism as well in a small school because you cannot be a specialist in every subject".

Music was the subject which Rosemary felt she lacked confidence to teach and she expressed some relief that she did not have to teach it and attributed it to a failing in her own schooling from the age of seven when she had been told that she could not sing in tune. She explained how she would have a go at teaching most things but that she also knew where to go if she needed help: for instance she had been on the twenty day Science course run by the authority as her understanding of Physics was so limited: again this was attributed to failings in her own schooling.

In this study, the teachers noted individual deficits in their knowledge, limited to certain curriculum areas and reflecting their own educational backgrounds. Notably, Mike Harris the most recently qualified as well as the only full-time teacher, felt that there were no curriculum areas which he was not confident to teach. In this study, as in the INCSS project, perceived confidence and competence was most frequently reported to be low in the teaching of Information Technology with Technology and Music also being 'weak' areas for the teachers. Whilst the degree of confidence and competence amongst the teachers in this study cannot be compared to those in other

studies, it is true that the teachers held concerns about teaching similar curriculum areas as others in both small and large schools (Hargreaves *et al*, 1996, Bennett *et al*, 1992).

Working in a Small School

Mike talked about the number of extra duties which he held, which he considered would not be part of his job in a larger school: "I probably do a lot more jobs than people who work in big schools you know, like you said, co-ordinator, you know, I do two whole subjects and I do Geography, History for my year group and work for the upper one. I do R.E. as well for my class and sorting out some of the infants as well. I did all of the Art for Key Stage Two. You get involved with all of the bits and pieces if there's a problem . . . I seem to do other jobs as well you know like 'phoning around trying to find out about the computer courses, you know, making phone calls about things that in a big school you just don't do because somebody else is in charge of it all". When questioned about his feelings on these additional parts to his job, he did not feel that they added to the job in a formal sense: "It's just work anyway. I just get on and do it. I suppose if you felt as if you should be within these bounds here then it might be, but I don't tend to think of it like that" Work for the OFSTED inspection however was seen differently as it had taken up so much time and created stress. When talking about catering for more than one age group, Mike noted that his work was made harder, not only as he had to plan more than one activity but also as there were no other staff responsible for the same age group, with whom to share "the donkey work".

Mike acknowledged the problem of isolation in a small school, not in terms of professional discourse but in terms of having very little scope to choose friends amongst the staff, "You do have to make sure that you make an effort to get along with everybody and have a chat, you could come in and just sit in front of each other and you know, you do have to make an effort to be friendly and outgoing"

Linda also felt that the small number of staff at the school was a drawback: not only did she find the mix of staff "bland" with only a limited number of "personalities and occurrences", but also

she found the limited subject specialisms of the staff problematic: "quite often, in a large school, (there were) Heads of Department, sounds a bit grand, but, they really were absolute specialists in that subject, whereas (here, it's) . . . "Who's going to be English co-ordinator?" . . . they do it (here) because they are available". Both Linda and Jean however, felt that the children got a better deal in a small school "as long as they had committed teachers.

Linda felt some sympathy for Mike and the other staff as she felt that they were isolated and did not realise what it would be like in a larger school, "It would be nice if they had got other people around, you get so many more ideas and input, have you looked at this book? Have you tried this? or, displays, yes, yes, just cribbing other people's ideas, which I think a lot of teaching is about. If you see something that is good and works, why not do it?". From this arose some comments by Jean about the cluster group. Neither Jean nor Linda were sure what cluster meetings went on and felt that it had largely failed. They were disappointed that it had not helped them in, for example, moderation. Linda talked about the meeting which she had attended, " We were supposed to moderate when the National Curriculum came: a cross discussion, but I have been to one meeting and that was a long time ago and it wasn't particularly fruitful. Yes, it was time, time again, and in your own time, after school, yes, it was just an extra thing".

Jean commented, "It's nice getting to know the children as they go up through the school, isn't it? You get, because we are a small school and a small staff and we will discuss together, then it's nice that you get to know them before you get them in your classroom, really, but (at Pear Tree) I don't think we've got a village atmosphere at all".

Rosemary differed on this point, and felt that she had enough ideas and experience "stored up" from her previous appointments that she did not need other staff to work alongside; further, having until recently worked at Pear Tree School simultaneously, she shared two staff rooms and two sets of staff with whom to talk. Courses also prevented her from feeling isolated. Liaison with the headteacher who also had responsibility for the class was limited as the two taught different subjects with relatively little overlap, however, she explained that they knew enough about each

other's work that they could link in ideas or vocabulary if it arose. Their liaison amounted to arranging the year's plan and then seeking advice if necessary

Rosemary felt that there was more planning to be done in a small school, due to the mixed age classes, but the most important difference was the effect which writing policy documents had on her work. She did however emphasise the positive side of the small school, in that the entire staff was able to discuss policies and therefore had ownership of them; she therefore saw the time spent on such documents as being spent more valuably

The most satisfying aspect of working in a small school was seen by Rosemary to be the relationship which was able to be built up with each child from Reception age, even though she did not teach them until Year Three. She felt that the close atmosphere found in the small school was not present in the large schools in which she had taught. "I think that the most satisfying is when the children come to leave, well no, not because I want to get rid of them, but going through their work that they have done . . . in the four years, to be able to see the delight on their face when they realise how they have improved . . . that is very satisfying and that by the end of Year Six, 98, 99 per cent of the children are ready to leave . . . to have the confidence to feel that they can stride out." She also felt that children were better served in a small school because of the more efficient communication between everyone concerned with the child, she cited the example "If you have a child with difficulties in, say, speaking skills, people are more willing to have them come with some ridiculous message knowing full-well that this is a child who needs to come and speak to another adult and we all know that that particular child needs support, whereas in a large school, it may only be a couple of teachers for the age group who know" She concluded her interview with the statement that small schools create better citizens as each child could be appreciated for their own strengths and skills

"A common assertion about small rural primary schools is that their teachers suffer the effects of professional isolation" (Sigsworth, 1985, p.10). A sense of isolation was the only repeated concern of the teachers in this study yet it differed from that described by Sigsworth. The staff saw

themselves to suffer social isolation rather than any professional isolation. If they did comment upon any professional isolation, they saw it in other staff, as Linda did with Mike, and did not see it as applying to themselves.

The teachers were aware of the extra duties which the smaller staff numbers forced upon them. For Mike, as a full-time teacher, these were viewed as just part of his job. As with the PRISMS teachers, extra demands placed upon the teachers were explained to be simply a result of there being “fewer adults in the school with whom to share the work” (Patrick, 1990, p.31). Where the other staff saw extra duties to be an issue, they were related to the part-time role which is discussed in the section below. The teachers in this study had relatively high levels of job satisfaction largely because of the small size of the schools, allowing sustained contact with each child, echoing findings from the PRISMS project (Patrick, 1990, p.33). This appears to be a feature which distinguished these teachers from others working in larger schools.

Teacher-Pupil Relationships in Mixed Age Classes

There was consensus amongst the teachers about working with pupils for more than a year. Whilst they noted that personality clashes could be a problem for teachers and pupils alike, the advantages were generally seen to outweigh the disadvantages, certainly when pupils stayed for only two years in the same class. Mike saw advantages in the mixed aged classes, “because after you have had them for a year, you can start to be a bit more relaxed with them, so you start to understand their personality more and you might find things hard to deal with. Sometimes you can give them more of an idea of how to deal with it without it being a problem which it might be to start with”.

Whilst personality clashes were seen by both Linda and Jean to be an occasional reality and problem, it was minimised at Pear Tree School for both pupils and teachers due to the part-time staffing arrangements. Linda argued, " They've got three different teachers, so they are bound to get on with one of them . . and also, if someone does drive you berserk, you haven't got to meet them every day. But you do have to meet them for two years!" .

Rosemary also acknowledged personality clashes could occur, but continued, "but I do try to be such that I don't let personalities come between me and what I'm doing. I think you have to be a particular type of person to teach in a small school, and if you are not that type then you soon get out anyway". Overall, Rosemary preferred the fact that children stayed in a class for more than a year because they learnt what was expected of them" She also felt that the children were more confident as a result of attending a small school, and added that this was reflected in the comments of teachers visiting from secondary schools. "These have all had chance to be individuals, to have areas of responsibility" she argued, rather than being "more or less, just a number."

Part-time Teaching

Being part-time teachers was seen by Linda and Jean to have a greater influence on their workloads than the fact that they worked in a small school. As Linda said, "it's a fascinating situation really because people think if you are part-time you've got less (responsibility), but just because we are a small school, if somebody doesn't take it on board, then it won't happen, so we end up taking on more The actual time you are in the classroom is limited, but you have still got more work on the outside really". Jean talked about her responsibilities: subject manager of Geography and Mathematics as well as Special Educational Needs Co-ordinator and previously also teacher governor, giving the example of writing reports to parents, where her overall workload did not reflect the fact that she only taught for two days: "I still have to write their general comments, their History, their Geography, their I.T., their P.E., their Maths and half their English . . plus the Parents' Evenings: we still have to go to both Parents' Evenings".

Such part-time teaching was seen by Linda and Jean to provide the children with teachers who were better prepared and less tired, adding impetus to lessons. Both thought that part-time teaching was less stressful: Linda said, "Well, that's the bonus of being part-time, that you can be removed from it" and Jean adding "I still get my weekends relatively free, because I do the work during the week". Linda referred to part-time teaching as an "expensive hobby": "going on courses -

a whole day at Manor Hall, you know. It's an expensive hobby, I think, really, because you pay all of the petrol to get to Warwick, you spend all of the day on the course, you buy your lunch while you are there, you come back!". With more time available in the week, she spent proportionately more time planning and preparing and the issue of time came up even when considering attendance at courses: Linda commented on attending courses on her days off as well as attending staff meetings and Sports Days regardless of whether they fell on a work day or not. As part-time staff, Linda and Jean argued that the children were getting, as Jean put it, "far greater value for money". As Linda explained: "They don't just get two teachers in situ, they get two teachers who are putting in twice as much! . . . I often think that if I worked full-time, I couldn't possibly do it (planning) to the degree that I do now."

They both acknowledged that assessment and moderation were made easier: Jean felt it was "quite nice to get together and compare notes and reach agreement" and, as Linda put it, the children got "quite considered comments from two people". Linda expressed some concern about the way in which most teachers probably moderated work, "(we) Come to agree, which is what is really supposed to happen anyway. These teacher assessments are supposed to be moderated, because of the system we do it, but I would like to bet that most year six teachers put a number in a box and it hasn't been moderated. So actually we are doing what the system says, but (we are doing it) because we feel we need to because we've both taught English"

The part-time element of these teachers' work appeared to have a considerable influence upon their perceptions of their work. The additional work which they felt bound to do fell into two categories. Firstly, that which extended into their days off rather and was directly attributable to the shared responsibility which they had for their class and secondly, that caused by the small size of the school, for example, their multiple curriculum responsibilities. Whilst both were commented upon, it was the former which caused them to speak with a tone of resentment. They had responsibility but lacked recognition for their efforts and achievements. Such recognition has been argued to be important as a motivator and contributing to a sense of job satisfaction (Evans, 1998, p.143).

CHAPTER 5

THE WORK OF THE HEADTEACHERS

The work of the headteachers of the two schools was investigated separately from that of the classteachers. Firstly, their working weeks are considered, both in terms of the hours worked and the activities undertaken; comparisons are made with existing research into the work of teachers (Campbell and Neill, 1994) and headteachers (Blease and Lever, 1992, School Teachers' Review Body, 1996). Secondly, their visions and philosophies regarding both their roles and education are examined. Finally, the degree of control which they had over their day to day activities in school is analysed.

Many similarities in circumstance existed between the two headteachers, sufficient that on examination of these one might expect there to be common features in their work. The schools had 101 and 74 pupils on roll at the start of the study. The schools were located in the same cluster group of schools: joining together for in-service training and sports matches. Both were set in a rural location with headteachers who had been in their posts for some seven years. Thus, both had been appointed in the period following the 1988 Education Reform Act. Further, at the start of the study, each headteacher had a class teaching commitment.

Brenda Jackson, Headteacher of Pear Tree School

Brenda had been in teaching for the whole of her working life. After qualifying, her first appointment was at the school where she had done her teaching practice where there were three hundred pupils on roll. She worked there for nearly eight years and during that period was promoted twice and taught all ages through the infant and junior range. Her second post was at a very large school in Birmingham where she worked for thirteen years and was further promoted and worked as both acting head and acting deputy.

She then took a temporary term-long secondment running an environmental studies centre, then she returned to her previous post, but was called for interview almost immediately on her return for her current post at Pear Tree School. She had encountered problems with her headteacher at her previous school and commented, "I found out he was giving me lousy references. Gave the secretary the good reference to type but he always posted them, but he didn't know I was applying for this job, did he? So, that was fine because he wasn't used as a referee was he, and he was absolutely foaming (laughs)" On taking the post, she had a 0.8 teaching commitment, "Fifty two children when I came; two classes, one full-time teacher and two part-time and between them the two part-timers did a point two". Rosemary, the teacher at Haybarn School had been one of the part-time staff.

Brenda had been appointed to the position of head of Pear Tree School in 1990, following an incident at the school when the pupils in the junior class rioted. She saw herself as having been appointed as a trouble-shooter and in her own words, "When I got here I discovered, my goodness, just how much trouble there was to shoot!". In her time as headteacher, Brenda had expanded the school from two to four classes, with the number on roll nearly doubling from 52 children to 101 children and with the number of teaching staff, apart from herself, rising from 1.2 to 4.2. In addition, she had set up a separate nursery unit on the school site, added a further two temporary classrooms, had an office built and was in the process of setting up a large nature area and having an office for the secretary built.

Brenda had developed the school buildings since her appointment. She commented, "There might be three walls that are the still the same". There were initially two classes: Infants and Juniors. Brenda was still amazed about the state which the school had been in on her arrival, "The teacher in the infants had been here since the school opened, in the same classroom, in the same position with all of the furniture the same, had turned down new furniture. So when I came, everything was as it had originally been including the furniture. So where the money went from capitation, I do not know. Of course, had it been LMS, we'd have been laughing because we'd have had a nice pot of money ". She continued, "I walked in in the summer holidays. The sink was full of

Table H1: Brenda's Working Week (data derived from the Record of Teacher Time) expressed as both the total number of hours recorded and the proportion of that total

CODE	ACTIVITY	TOTAL TIME RECORDED (HOURS)	PROPORTION OF ALL ENTRIES (%)
AA	SCHOOL MANAGEMENT Routine, administrative and clerical	14.00	26.39
AM	Management and Policy-making	8.10	15.27
Astf	Personnel Management	4.65	8.77
ACR	Community Relations	1.50	2.83
AN	Nursery Links	0.50	0.94
		}28.75	}54.20
IR	IN-SERVICE TRAINING Reading of professional magazines . . .	0.35	0.66
AP	ADMINISTRATION Discussion, consultation with parents	9.45	17.81
AL	Staff liaison outside school/K.S.	0.75	1.41
AW	Assembly / Act of Worship	2.25	4.24
AB	Breaks - free of work	2.90	5.47
AF	Breaks - not free of work	3.50	6.60
		}18.85	}35.53
OA	Other activities	5.10	9.61
	TOTAL	53.05	100.00

dirty paint palettes and dirty paint brushes, the so-called work was still on the wall, all the equipment in the school, in the junior class, was broken and the school was run separately. The infant class was totally separate to the junior class and you didn't even borrow each other's guillotine, so there was an awful lot to change. And we have come a long way. . . , but I'm not building any more . . oh, after I've built the new staffroom". In terms of subject expertise, Brenda felt that I.T. had 'left her behind' and to a lesser extent so too had Design and Technology. She was pleased that lessons involving the building of "stereotyped" models from templates which had existed in the days of 'art and craft' had been lost in favour of lessons which involved the whole design and construction process. She felt that her weaknesses were a result of outdated training: "If I were teaching I would certainly need refresher courses . . well, courses, never mind refresher courses, because I could never do it originally! Maths and English I'm happy with, History, Geography. Science probably, it would give me some worries because obviously my training and subsequent courses were more nature, they were more the human body. We certainly didn't go into the physics. We didn't go into the chemistry."

The Working Week

The summary data of Brenda's time diary are presented in Table H1. Brenda recorded work she had done at home and in the interview noted that this was less than usual as she had completed some on the school premises during the second Parents' Evening of the week. All of the work which Brenda did at home was coded as Routine, Administrative and Clerical work, this amounted to a total of 4.4 additional hours of work, including an hour and a half on the Sunday. This gave a total recorded working week of 53.05 hours and an average of 10.31 hours per week day. This is broadly in line with research findings about 145 headteachers of primary schools of all sizes commissioned for the School Teacher's Review Body (1996) which reported the working week to total 55.7 hours. From this evidence, it appeared that the length of Brenda's working week did not differ markedly from other headteachers. Whilst the distribution of her time differed from those teachers who contributed to the School Teachers' Review Body study (1996), as might be expected when taking just one week as a sample, the 2.9 hours which Brenda spent in breaks free of work were also

similar to the 2.7 hours of non-working breaks in school hours which those teachers recorded (School Teachers' Review Body, 1996, Table A24).

At the start of the research, Brenda had a 0.1 teaching commitment with the Year 5 and 6 children, although by the end of the period in Pear Tree School, she had relinquished this duty. During the week in which Brenda completed the ROTT, she did no teaching. The afternoon which would typically have been spent teaching was divided as follows: thirty minutes in seeing a parent, 27 minutes, as was usual, taking assembly, 18 minutes in a break free of work, 30 minutes in Routine, Administrative and Clerical work and 30 minutes dealing with the Nursery unit. Also during that week, there were two Parents' Evenings: set aside for parents to visit the school, see their child's work and talk to their child's teacher about his or her progress. The first lasted three and a half hours, during which Brenda saw parents and the second lasted nearly two and a half hours, during which Brenda coded her work as being concerned with Management and Policy-making. Each Parents' Evening was preceded by Brenda going to the cafe in the local supermarket with the staff for a meal.

More than half of her week was coded as activities specifically related to her position as headteacher. Four categories dominated her work. Fourteen hours, was spent in routine administrative and clerical tasks. A further eight hours (8.10 hours) was spent in management and policy making activities. Discussions with parents accounted for nearly ten hours of entries, although as has been noted, the diary was completed in the week of Parents' Evenings which contributed to this total. Fourthly, some ten per cent of Brenda's time was spent in 'other activities' and she spoke of these in her interview, "Being in a small school, you're involved with things like unblocking the loos because there isn't anybody! There isn't a caretaker on site, the staff are teaching, so who does it? Who goes out and picks up the litter? Who goes and sorts out the shed? It's you because there isn't anybody else! Who goes round and works out what stock to buy? Who checks it off when it arrives or the 'phone rings? ". This would seem to be an important part of the work of the headteacher in a small school where there is no full-time caretaker, and indeed, Brenda was observed engaged in activities as diverse as dead-heading the daffodils, serving school dinners and

wall-papering her office. In the holidays she had baled out a classroom which had flooded and her own parents frequently spent time on the school premises doing minor repairs and maintaining the playground. Indeed, her parents were known by pupils who reported that they often helped around the school.

When asked about her work outside school hours, Brenda discussed the weekly variation and the balance which she struck between her work and the rest of her life, "Some weeks it's horrendous and I might spend three hours a night and then other weeks I don't, and I have learnt now that I must switch off because what I was doing was working as long a time as I was in school. It wasn't doing me nor anybody else any good, so I actually now have a cut-off point and after two hours I stop regardless. I might spend a lot longer *worrying* about it, but you don't count that". Despite setting herself time limits for work, Brenda still worked reasonably long hours during the week.

The School Week

Observations were made over twenty days, of which six afternoon sessions were spent teaching and the remaining thirty four half day sessions were spent in her management role (henceforth referred to respectively as teaching sessions and non-teaching sessions). These two elements of her work are considered separately below, but they were not mutually exclusive. Periods away from the classroom rarely called for Brenda to engage with pupils, with the exception of assembly times. Much of her time in the classroom was spent dealing with management tasks whilst the children worked.

The Teaching Day

Brenda was observed over six afternoon teaching sessions. Four of these were with the Year Five and Six class for which she had partial responsibility and the remaining two were with Mike's class when she acted as supply teacher when he was away from school. For the purposes of this

Table H2: Brenda's Teaching Day (data derived from participant observation over six afternoon teaching sessions) showing both the amount of time observed in hours and the proportion of the total which that represents

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBS'NS (%)
1: Register	0.38	2.27
2: Transition	0.33	2.00
SCHOOL MANAGEMENT		
a: Routine Management and Administration	6.20	37.55
b: Management and Policy-making	0.30	1.82
c: Personnel Management	1.10	6.64
d: Community Relations	0.23	1.36
	}7.83	}47.37
WHOLE CLASS		
3: Instruction	0.57	3.45
4: Teaching	1.77	10.72
5: Story	0.10	0.91
6: Praise	0.12	0.73
8: Class Enquiry	0.93	5.64
	}3.49	}21.45
GROUP		
10: Instruction	0.18	1.09
11: Teaching	0.08	0.45
12: Monitoring	0.15	0.91
	}0.41	}2.45
INDIVIDUAL		
13: Single Child	1.47	8.91
16: Mobile Monitoring	0.51	3.09
	}1.98	}12.00
17: Routine	0.42	2.55
18: Inert Supervision	0.05	0.27
19: Settling Time	0.15	0.91
22: Staff Liaison	0.26	1.55
23: Parental Liaison	0.38	2.27
24: Other Liaison	0.20	1.18
27: Relaxation	0.12	0.73
29: Supervising Children	0.38	2.27
30: Other	0.12	0.73
TOTAL	16.50	100.00

analysis, all six sessions are considered together, as Mike's absences had been known of in advance and so Brenda had time available to plan for them. Table H2 summarises the observation data for the Brenda's teaching sessions, running from 1.00 p.m. until 3.45 p.m..

All of Brenda's lessons which were observed, could be categorised as fulfilling the wider curriculum beyond the subjects embodied in the National Curriculum. She was observed to teach drugs education and PSE, movement lessons with a focus on relaxation skills, making Christmas decorations and also to ask each class to write and draw pieces for selection in the school prospectus. These lessons not only reflected Brenda's own values and educational priorities, but also were planned to meet her own or the school's needs: namely adding interest to the school prospectus and gaining an award for the school for safety awareness. In these respects, Brenda worked autonomously of both the other staff and the National Curriculum.

What is most important to note about Brenda's teaching time is the high proportion of time spent in school management duties. The time spent in the classrooms, rather than that spent teaching movement in the hall, was organised so that pupils worked independently, leaving Brenda to deal with the school post, fill in the Headteacher form for OFSTED and draft letters and a job description for one of the staff. On one occasion, a visitor from the LEA dropped in 'for a chat' and Brenda spent time talking to him in the classroom, and on another, the local policeman came into the classroom to talk to Brenda about a prowler who had been sighted by the school grounds. The secretary also visited the classroom during lessons with queries, telephone messages and letters to proof read.

Brenda felt tensions in her job, when considering her duties to the children as well as the staff. The observer had noted occasions when Brenda had spent an afternoon in the classroom carrying out administrative duties after having set the class some work which would require only the minimum of her attention, "I found I was pulled in two directions, possibly three directions on occasions. I would find myself giving children work, basically to occupy them because there were certain things that I had to do whilst the secretary was in school, things that come up that you have

to do now. As a head that isn't teaching you can but as a head with a class of children you can't. There were days that I went home and I felt that I hadn't done right by either group: neither the administration nor the children."

Brenda felt that her teaching style was, if anything, formal. She was uncertain why she preferred this approach but speculated, "whether that's my training and my age or not I don't know, but I do feel that over the years I have seen that particular style does work because I have been teaching long enough to have had children who have grown up, gone out and got jobs and come back and seen me. So, basically my style is pretty formal - workwise". She acknowledged, as did other staff, that the 'formality' of a lesson, by which she meant the degree of whole class teaching, changed according to both the age of the children, the subject and the lesson content. She gave the reason for this as, "it was a mix because that was how you coped with differentiation".

There was a distinction made however by Brenda between this approach to teaching and her relationships with children, which she saw to be "a sort of very free and easy attitude with children. I mean, I will call them things like 'sunbeam', try and talk to them on the level that they would; never talk down to them, so I talk to children exactly as I would talk to anyone else, which some people might find a bit odd. Even with Reception, you know, it's not "Don't do that, Darling", it's sort of get in there and tell them so that they know where they are. I'm very quick to praise but if I think they are going to overstep the mark, I will jump on them, from quite a height!".

Teaching in a small school

In terms of delivering the National Curriculum, Brenda felt that it had taken much of the pleasure from teaching. She argued, "I do feel that the staff and the children have lost out on what I consider to be the joy of teaching, where if it was a lovely sunny day, you picked up your clip-board and you went to the park and you did a super lesson and you came back with stuff: you planned, you know, you knew vaguely what you were doing, that you'd be doing so much nature and all of this, but you could do it as and when you wanted as long as you covered it in the year. If the man came and they started knocking the school wall down, you would do a mini-project on building and you'd

sit and you'd watch the building and you'd interview and you'd do the drawings and the artwork and it would all be there and it was all relevant. Now, you find that the National Curriculum runs you: you say, "This term I have to do this, this, this and this" so you go out and you manufacture those situations, whereas before it was the other way: there was a situation and you used it as a teaching tool". Brenda described the curriculum as it existed before 1989 to be "more relevant", she also noted that although children were knowledgeable about, for example, electricity, as a result of the National Curriculum, she worried "about what is going by the board to do it".

Brenda, who had taught a class spanning four years remembered the extreme of a mixed age class to be especially "difficult; yes, if you didn't get on, boy, was that a problem!". Nonetheless, she did see certain advantages: " There's good and there's bad. The good, because I'm always positive, is that you really get to know your child, your child really gets to know you. When you come back after the first year you are not saying "This is how I want your work set out", all of that is mapped out. You know instantly if there is anything wrong with a child because you know them so well and you are so attuned. They also become very confident with you and they will tell you all sorts of things that they wouldn't have done before. I mean you all build up a relationship over twelve months and a good teacher will get to that stage pretty quickly, but if you've got them for more, then it becomes even easier. The parents become very at ease with you and that's good. The down side is if you didn't get on with the teacher and you were stuck with them for years it could be horrendous. There's the boredom factor of being with someone. Two years I think is fine. After two years I begin to have grave doubts". She continued, "I know they've got to learn to live with people, but in a very small environment that's very difficult. You can't ignore someone in a playground the size we've got. You can't ignore them in classes because the rooms aren't that big and they are pretty full, so I think that's the major downside: that you are with somebody. What goes for one way as good is also counter productive. It's difficult for teachers to have a different approach for two years. You can cope with two but after four years and you are thinking "I'm sick of these sewn eggs" because of necessity you have got to go over things again and again and you are constantly striving for a different way of putting it over because of the poor child who is in their fourth year with you. Plus, you get that sinking feeling after three years of "Oh no, not again, I would love to see some

different faces" because that's what's nice in teaching, because you give your all to a class and they leave you and the next year you get another lot, particularly if you've got children that have problems. You can cope with it easily for twelve months but when you think in the middle of the six weeks holiday and think, "Oh gosh, I've got to go back to so-and-so".

Brenda felt that it was harder working in a small school. She commented, "There are far more demands on your time, particularly with the curriculum, particularly with subject managers: in a large school you might have two people managing a subject, but here they are managing maybe four or five".

Brenda also expressed concerns about the limitations of a small staff from the point of view of the teachers. She argued, "It can be a trap for staff. If you are once appointed in a small school, there is a possibility that you never move and I can see that happening to some staff here already and because they are very happy, they don't want to move and you think, well, is it my job to push? I mean, obviously I am very happy for them to stay because if you have got somebody that's happy, they are working well, they are into the routine, the children know they are in that particular class, that's wonderful. It's wonderful for me, it's wonderful for the children, but you do have to be mindful that staff could get trapped".

Non-Teaching Time

Brenda was observed away from the classroom for a total of thirty four non-teaching sessions. This gave a total of just under 120 hours (118.72) of observations, from a possible 123.25 hours, the shortfall reflecting periods when she arrived in school later than 8.30 a.m. and left before 3.45 p.m. which included all occasions when she took a lift to school with George.

Table H3 outlines the ways in which Brenda spent her time away from the classroom. The observations were coded using some of the teacher categories in addition to codes specifically relating to her management role. Discussions with staff and others were incorporated into the

Table H3: Brenda's non-teaching time (data derived from participant observation of thirty four non-teaching sessions) showing the time observed in hours and the proportion of the total which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVATIONS (%)
1: Register	0.08	0.07
SCHOOL MANAGEMENT		
a: Routine Administration and Clerical	28.67	24.15
b: Management and Policy-making	7.15	6.02
c: Personnel Management	12.61	10.62
d: Community Relations	3.57	3.01
e. Other Activities:		
secretarial	2.90	2.44
care-taking	9.37	7.89
miscellaneous	2.45	2.06
	}66.72	}56.19
WHOLE CLASS		
5: Story	0.40	0.34
6: Praise	0.57	0.48
8: Class Enquiry	0.12	0.10
	}1.09	}0.92
GROUP		
10: Instruction	0.22	0.19
11: Teaching	0.23	0.19
12: Monitoring	0.28	0.24
	}0.73	}0.62
INDIVIDUAL		
13: Single Child	0.78	0.66
16: Mobile Monitoring	3.03	2.55
	}3.81	}3.21
18: Inert Supervision	1.73	1.46
19: Settling Time	0.82	0.69
23: Parental Liaison	5.61	4.73
27: Relaxation	29.12	24.53
28: Playground duty	0.75	0.63
29: Supervising Children	1.13	0.95
31: Assembly	7.13	6.01
TOTAL	118.72	100.01

headteacher codes. Parental Liaison was retained as a separate code. This was because whilst the time with prospective parents and in meetings with parents was incorporated into the school management categories, the remaining time with existing parents consisted of informal conversations, similar in content to those between other staff and parents.

On certain occasions, Brenda provided cover for her staff, be it for a short time if they were late to work or had to leave the class to take a telephone call, or for longer periods if they had, for example, an appointment with a doctor. The remaining time spent working with children was largely at times when she wandered through the classes, often taking a mug of tea to the junior staff, and paused to talk to children and help them with their work for a few moments. On two occasions children came to her office during lessons, firstly a child who wanted to give up playing the violin and secondly a group of boys who had run across the road to get their football. Other children talked to her at breaktimes about organising a bring and buy sale and at the end of the day Brenda spent some time usually with children waiting with her for their parents to arrive.

Brenda expressed her views on her role as headteacher very clearly in the interview with the observer, "I used to fill in on my forms, when I applied for jobs, that I would lead by example and probably to a certain extent I still do. I do think that the ethos . . . I hate that word, but for the want of a better one, the ethos of a school does come from the top and I have worked in schools where the ethos has been bad and I have put that squarely at the feet of the head. So I said, why don't I be a head and then I've only got myself to blame. I spent many years working for people I didn't respect, mopping up after people I didn't respect, covering up for people I didn't respect, so I said well, put your money where your mouth is and go and do it yourself. Now, I consider my strengths if you like to be on that side. I like to think that I have handed the teaching over to very able people and I'm happy with that. You know, I never thought the day would come when I would quite happily move out of the classroom. I never thought I would want to let go of that but as a head you can do a lot more - intangible things - you can't go home at the end of the day and say "Oh well, I've done that today" but if you look back over the seven years . . . I mean in that time the school has completely changed, everything is different, attitudes are different, people are different, children are different."

Alexander's analysis identified four predominant styles of headteacher from interviews conducted as part of the Leeds PNP project between 1987 and 1989: the 'boss', the chief teacher, the managing director and the team leader (Alexander, 1992, p.114). The second of these, the head as chief teacher, that is someone "believing and demonstrating that the teaching function of a school is pre-eminent and that the head must play a leading part, by action and example, in advancing it" (Alexander, 1992, p.114), seems, on the surface, to be the category applicable to Brenda. However, this last comment by Brenda suggested that the categorisation of headteacher styles by Alexander (1992) was overly simplistic as Brenda did not fit easily into this category: by moving out of the classroom willingly, she was giving up her role as 'chief teacher', yet retained those values in her heart. Elements of her work demonstrated her to be the headteacher as 'boss', spending time in her office as well as time patrolling the school. During the interview, she commented, "I try to make it an unwritten rule that I visit classrooms on a regular basis and of course only having four you can get 'round faster. You can actually do them all in a morning, you know, you have shown your face and you have been in . . . I think that is important for the children and the staff. You will go in and you will make comments on their display, what they are doing and support them. So, that's nice".

Routine Management and Administration

Administration has been identified to be a significant part of the role of the headteacher (Blease and Lever, 1992; Webb and Vulliamy, 1996). As with the ROTT data, this code contributed a large part of the observational data. Activities coded in this way were varied both in nature and in duration. Some of the work coded to be concerned with administration involved directing the secretary. Brenda wrote all letters, except those, for example, notifying parents of instances of head lice and worms, and then gave them to the secretary to be typed before proof-reading letters once printed.

The remaining activities coded as administrative and clerical work fell into two categories. Firstly, those which could have been allocated to the secretary but were not, either because they had to be done on a day when she was not in school or because Brenda preferred to carry them out and secondly, those which had to fall to Brenda as they involved making decisions. The former were

often trivial in nature, ranging from the routines of booking the caretaker on floor cleaning and polishing course and renewing the 'Police Safe' registration for school. The latter were diverse and ranged from the relatively mundane tasks of writing letters of thanks for donations to the school and talking to the organisers of the village fete to the more important tasks of liaising with finance officer in the completion of OFSTED Headteacher's form and sorting out baselines and SATs results for the OFSTED inspection. The other tasks which fell into the category of administrative and clerical work were organising alterations to the school kitchen, organising parents to build a gate for the school nature trail and paying them, writing a job description for the secretary, writing to the caretaker regarding the opening of the school on election day, telephoning the county about the fencing around the school, meeting with the representative from property services and discussing September intake with the nursery class teacher.

Management and Policy-making

Curriculum leadership has been identified as part of the headteacher's role (Mortimore *et al*, 1988; Webb and Vulliamy, 1996; Wilson and Mc Pake, 1998). During the period of observation, this occupied only a minor part of Brenda's school week and fell into two main categories of activity. Firstly, she organised and led staff meetings and secondly she set time aside for a discussion with Jean, the Mathematics co-ordinator, regarding purchase of resources and structure and content of schemes of work

Over the two terms that the observer spent in the school, there were only two staff meetings, both held at lunchtime. They were not regular events, indeed one was held purely to organise arrangements for the OFSTED inspection. Brenda commented informally that they were less necessary features in small schools as the small number of staff made communication easy. George did not attend either meeting, and further was not present at the staff training day.

Direct leadership of the curriculum was not therefore observed to be a large part of Brenda's role, yet she made it part of her day's work to visit all of the classrooms and to talk to the staff each day.

Community Relations and Personnel Management

As the leader of the school as a unit, Brenda had to deal with all of the other employees. Although there was only a small number of staff in the school, it was noted by Brenda as well Mike, Linda and Jean, that the task of ensuring that the entire staff was motivated and working co-operatively together in a small school was harder than in a larger establishment. Brenda and the teachers felt that in a larger school staff could always find others to talk to, yet the atmosphere of a small school was claustrophobic leading to greater tensions between the staff. Beyond staff relations, time coded in this way included activities as diverse as organising a retirement meal for a dinner lady and staff appraisal and monitoring.

Brenda was also seen in a role as social worker, both in terms of conversations with the secretary who had family problems and talking to parents who also had family problems which were not concerned with their children. Parents were very open about such matters as their marriages, finances or health, even though the observer was frequently present in Brenda's office when they came to see her. The individual problems of the secretary during the research took a disproportionate amount of Brenda's time. Brenda also helped with day-to-day incidents such as helping a parent whose car was broken in to.

Much of Brenda's work included responding to the needs of her staff. Whilst her time diary indicated some six per cent of the time spent at school to have been spent in breaks free of work: equating to the same amount of time as the class teachers studied by Campbell and Neill, a far greater proportion of time was observed to be spent in the equivalent code of relaxation (22.86%). Brenda saw this time, chatting with her staff, as valuable and she perceived it in a very different way, classifying it as a form of management. In her interview, she said, "I make it a golden rule that I'm there at playtimes and I'm there at dinner times because I haven't got a deputy and I like to get the feel of the staff. I know then who's feeling on edge, who's got problems, which children have got problems because names crop up as they come into the staffroom, so, you are very aware not only of your staff but also of the children and your parents."

She routinely made the staff a pot of tea in the morning and during morning, afternoon and lunch breaks. Brenda usually remained in the staffroom over the whole of the staggered morning break. During the afternoon break which the Reception and Infant classes had, Brenda would often take a cup of tea to each of the junior classes, stopping to chat to both teachers and children and to praise work and behaviour. Both in informal conversations and the interview, she made it clear that she valued her staff and worked towards maintaining a good working atmosphere for everyone in the school. The importance of headteachers in providing support in the workplace has been noted elsewhere. (Nias, 1989). Brenda saw friction between individuals as something which she was responsible for keeping under control and linked this with the fact that she helped her staff in ways such as freeing them from all regular assembly duties in order to allow them non-contact time on a daily basis and by standing between the staff and the parents: "If you kick one of us, we all limp, because that's how you have to be in a small school, because if you are not, everything breaks down!"

Brenda considered that the absence of a deputy led to her having extra work, in the sense of "being a peacemaker" between the staff. If the promotion of good staff relations is a part of the job of deputy, then one would expect it to occur during break times as these are periods when staff are free of class responsibilities and so can talk without interruption and therefore to be a contributory reason why the deputies in the study by Campbell and Neill (1994, p.151) spent significantly less time on breaks and breaks free of work. Brenda recorded herself to spend more time on breaks than all Key Stage Two teachers in the study, even than Rosemary from Haybarn school who had 1.25 hours per week more of time-tabled breaks as well as more time than both the deputies and class teachers in the study by Campbell and Neill (1994). The ROTT data alone would not have identified that these periods recorded as being free of work were perceived by Brenda as an important element of her job and so this reflects the significance of the triangulated evidence.

Other Activities

Blease and Lever (1992) noted that some proportion of the headteacher's time was concerned with miscellaneous, mundane matters. The structure of a small school where staff numbers and

secretarial help are limited as are the finances available for care-taking and cleaning duties, would logically lead to the thought that in a small school, such duties will fall more frequently to the headteacher, as the only available member of staff during the school day. Most entries coded as miscellaneous and equating to 'Other Activities' on the ROTT schedule fell into one of the two broad categories, that of 'care-taking duties' and 'secretarial duties', so-called to reflect the title of the person who would do these tasks in a larger school. Care-taking duties were as diverse as planting daffodil bulbs, dealing with an anonymously delivered Christmas tree left in the playground and unblocking the toilets and secretarial duties as diverse as intercepting refuse collectors before the wrong bin was emptied, watering plants and washing up and making tea and coffee. There were a few exceptions to these categories, namely, serving dinners, sorting the library and reading scheme books into order and tidying office and school. They also included feeding the village stray dog who would come into the playground and bark until she had a saucer of tea and some of the staff biscuits. In fact, this was not a chore and Brenda had encouraged it to happen.

Susan Williams, Headteacher of Haybarn School

Susan, the headteacher of Haybarn School had also been appointed to a school in crisis; in her case, it was a school facing closure due to a falling roll. She had entered teaching late, after raising a family, and had worked in a local primary school, before moving to Haybarn School. In her time as headteacher, the school had become grant maintained: taking responsibility for its own finances. The number on roll had risen from 24 to 74, from two to three classes, soon to be four in the following academic year, and from 1.2 staff, apart from herself, to 2.1 staff. During the study, the school was being extended, having already had a double tennis court built on the site with the help of a National Lottery grant, an additional two classrooms and library were being added. Further, alterations to the existing building were planned, involving the extension and conversion of the old library into a secretary's office and a new entrance hall and extension and improvements to the infant and reception classes.

Each headteacher agreed to participate fully in the research. Despite pressure to do so, Susan did not complete a time diary or interview. The evidence for the analysis of Susan's work is partial in nature but, whilst relying mainly on the observational data, is supported by evidence from informal conversations. The consequence is that the data are incomplete and provide a less full picture than those about Brenda.

The Working Week

The evidence for Susan's workload beyond school hours comes from observational data and conversation with the researcher. She reported working into the early hours of the morning, and was seen to give the secretary a letter to type which tailed off unfinished as she had fallen asleep whilst writing it. Further, on seeing the ROTT she asked where the spaces between midnight and 7.00 a.m. were, as this was when much of her work was completed. Susan indicated that she worked long hours at home. Indeed, the amount of time she spent at school was kept to a minimum: Susan always arrived after the researcher, sometimes arriving at school at exactly 9.00 a.m. and often went home when the last of the pupils had left school.

The School Week

Susan was observed over twenty days comprising twenty teaching sessions and twenty non-teaching sessions. This gave a total of just less than 140 hours (138.28) of observations.

The Teaching Day

Susan was observed over ten days in the classroom, giving a total of just under seventy (69.15) hours of observations. The observational data are summarised in Table H4. She was observed teaching a variety of lessons, including Science, English comprehension, Mathematics, Tennis, Design Technology and revision for end of Key Stage testing.

Table H4: Susan's Teaching Day (data derived from participant observation over twenty teaching sessions) showing both the amount of time observed in hours and the proportion of the total which that represents

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVATIONS (%)
1: Register	1.10	1.59
2: Transition	0.39	0.57
SCHOOL MANAGEMENT		
a: Routine Management and Administration	5.38	7.78
c: Personnel Management	1.10	1.59
d: Community Relations	0.18	0.26
	}6.66	}9.63
WHOLE CLASS		
3: Instruction	4.79	6.92
4: Teaching	4.02	5.81
6: Praise	1.07	1.55
7: Test	3.22	4.65
8: Class Enquiry	5.23	7.56
9: One-way Class Enquiry	1.11	1.60
	}19.44	}28.09
GROUP		
10: Instruction	2.33	3.37
11: Teaching	1.59	2.30
12: Monitoring	1.39	2.01
	}5.31	}7.68
INDIVIDUAL		
13: Single Child	4.81	6.95
15: Special Needs	1.85	2.67
16: Mobile Monitoring	4.51	6.52
	}11.17	}16.14
17: Routine	2.20	3.19
18: Inert Supervision	1.44	2.08
19: Settling Time	2.18	3.16
20: Educational Assistant Liaison	2.03	2.93
22: Staff Liaison	2.06	2.98
23: Parental Liaison	0.61	0.89
24: Other Liaison	0.12	0.17
25: Preparation	0.98	1.42
27: Relaxation	8.50	12.29
28: Playground Duty	0.88	1.28
29: Supervising Children	3.40	4.92
31: Assembly	0.68	0.99
TOTAL	69.15	100.00

Susan spent relatively little time during lessons on activities concerned with her role as headteacher. She rarely entered the classroom with, for example, school post. The classroom was connected to the school office by telephone and this caused some small interruptions to her lessons. During lunchtime however, Susan dealt with the school post and queries which the secretary had. The presence of the secretary in school during the periods in which Susan was teaching allowed her teaching to remain so separated from her other work: the secretary dealt with all telephone queries and made appointments for people to call back at more suitable times. Telephone calls by representatives canvassing for business were discouraged as a matter of policy as Susan preferred to contact companies only when she required a product or service.

Her lessons were dominated by whole class teaching. As with each of the teachers in the study, the class was organised in different ways according to curriculum area. For example, observations coded as group teaching were mainly concerned with English comprehension lessons which relied upon a published scheme requiring pupils to work in groups selected according to reading age. Tennis lessons required whole class teaching and instructions to be delivered before the pupils went away to practice and Susan gave individual instruction. Science lessons were led by Susan and were characterised by extended periods of whole class teaching and class enquiry. Revision for end of Key Stage testing concerned Science and was organised so that the whole class were involved in running over work completed earlier in the year.

Non-Teaching Time

Susan was observed for eight days in school. A further two days were spent at headteachers' meetings away from school, which the observer did not attend. Technically, these two days have been included in the data presented in Table H5, although according to Susan she had spent only half a day at one of the courses. Naturally some time during these two days will have been spent in

Table H5: Susan's Non Teaching Time (data derived from participant observation) showing the time observed in hours and the proportion of the total which that represented

ACTIVITY	TOTAL TIME OBSERVED (HOURS)	PROPORTION OF ALL OBSERVATIONS (%)
SCHOOL MANAGEMENT		
a: Routine Management and Administration	9.82	14.21
b: Management and Policy-making	29.18	42.21
c: Personnel Management	3.02	4.37
d: Community Relations	4.55	6.58
e: Other Activities		
secretarial	2.08	3.01
care-taking	1.48	2.14
miscellaneous	1.77	2.56
	}51.90	}75.08
WHOLE CLASS		
3: Instruction	2.45	3.54
6: Praise	0.05	0.07
	}2.50	}3.61
INDIVIDUAL		
13: Single Child	0.18	0.26
19: Settling Time	0.86	1.24
23: Parental Liaison	4.95	7.16
27: Relaxation	6.67	9.65
29: Supervising Children	0.87	1.26
31: Assembly	1.20	1.74
TOTAL	69.13	100.00

travel and relaxation, but no attempt has been made to estimate and incorporate more detailed coding into the tables.

Routine Management and Administration

Susan benefited from nearly full-time secretarial help. She delegated all routine tasks to the secretary, for example, the task of opening, sorting and to some extent responding to post. This extended to the secretary chatting with job applicants on their first enquiry and doing an initial selection from the impression of themselves which they gave her over the telephone. Consequently a low proportion, less than fifteen per cent, of Susan's time (14.21%) was spent in this way.

Management and Policy-making

Beyond the two days spent in meetings outside the school, Susan spent a great deal of time in formal management meetings. At Haybarn School the governors took an active role in the running of the school and frequently came in to meet with Susan to discuss, for example, financial matters. Further, the extension to the school buildings called for many meetings with builders, architects and planners, one lasting for a whole day. These forms of management represented more than forty per cent (42.21%) of her time.

Community Relations

Time coded in this way largely involved the annual Sports Day and end of year assembly. The former was followed by a tea laid on for parents, the vicar, governors and villagers, during which Susan 'mingled', handing out cakes and tea. The end of year assembly was a formal means of thanking all parents for their support and others such as the vicar and governors.

Other Activities

A very small proportion of Susan's time was spent in other activities. Observations concerned with care-taking involved helping the caretaker to clear out the school garage. The secretarial work involved a number of different activities such as making drinks for visitors and

trying to mend the photocopier. The remaining 'miscellaneous' time coded in this way was concerned with setting out the school field for Sports' Day.

A Comparison of the Work of Brenda and Susan

Similarities in circumstance between the two headteachers have been noted earlier in the chapter, but when the data regarding their work were compared, they appeared to have very different priorities and work patterns.

It appeared that Susan was in fact working longer hours, rather than working at a different time of the day to Brenda. As a case in point, Brenda and a classroom assistant cleared out the shed at Pear Tree, whereas Susan organised the researcher and caretaker to do the same job at Haybarn, spending a small amount of time the following day finishing the job off with the caretaker.

Susan's style of management was more emotionally detached from her staff than Brenda's. She worked with the school governors rather than her fellow teachers. On occasion, this caused disquiet amongst her staff. She managed the school with dedication and detail, but in the management of her staff she showed only limited consideration of issues such as staff motivation. An example of this was when she failed to acknowledge two of her staff completing twenty five years of service at the school. When not teaching, Susan worked at school on projects which promoted the school, such as building improvements, organising an order for a set of school bags with the school logo on. All of the cars parked outside the school were noticeable because they displayed the sticker 'Haybarn School: a better start for your child'. Susan differed from Brenda, as she was geared to the market-place and worked on developing the outside image of the school first and on the internal working of the school second. Until 1996 most studies of Grant Maintained schools had focused upon the secondary phase. An exception was that of Campbell *et al* (1996) which examined both primary and secondary schools. They found the model of investing to promote a school's external image was one more commonly adopted by secondary schools. In contrast, Grant Maintained primary schools more often made investment at classroom level. In this sense, Susan

had adopted a different set of priorities to the Grant Maintained primary schools studied by Campbell *et al* (1996), and one closer to their secondary schools, concerned with promoting the image of the school.

The observational notes reflect that both headteachers in this study carried out a wide range of tasks, many of which would have been performed by people such as the deputy head, secretary or caretaker in a larger school. Whilst Brenda took it upon herself to carry out a variety of miscellaneous tasks, as well as to relieve her staff of such duties as attending the daily act of worship, in the interview she reported how she kept to a limited number of hours work each day. In contrast, Susan delegated many of the 'extra' duties involved in the running of a small school to her staff and the older pupils. For example, teachers were responsible for organising the school swimming gala and school trips and the oldest pupils sometimes answered the telephone and worked to organise school trips and Sports' Day.

Susan's staffing had been organised to facilitate this delegation: whilst being smaller than Pear Tree School, Haybarn School had a caretaker, a high number of secretarial hours, a cook and two classroom assistants. Part of this may be explained by the fact that the school had become Grant Maintained in order to remain open and, in gaining control of finances, heavy investment had been made into administrative staffing and buildings rather than in teaching staff. This reinforces the notion that Susan and the governing body were moving the school forward with a business-like approach. In contrast, Brenda's resistance to appointing extra administrative staff or to delegating duties to her existing staff, seemed to stem from the value which she placed upon her teaching staff and from her appreciation of their already high workload and need for equipment and resources. Brenda was essentially the administrative staff for the school, working as an 'enabler' to her staff, allowing them to get on with the job of teaching.

Despite the smaller number on roll, Susan spent a relatively high proportion of time in parental liaison and supervising children. She spent time at the end of the school day in the front garden of the school talking to parents and would wait with children. Parents came into the

classrooms to collect their children and so all staff were more accessible than at Pear Tree School, where Brenda discouraged parents from entering school and intercepted them in the school foyer, telling the observer it was her policy to shield her staff from parents and to “get rid of them quick”. At the start of the day, because she arrived just before the school bell, Susan would also talk to parents whilst unloading her car, reinforcing her role as a promoter of the school.

Brenda was more closely in contact with classroom life. Brenda kept in contact with those in the school, regularly going through classrooms on errands and pausing to talk to staff and pupils. When not teaching, Susan remained more detached from the classrooms as a greater proportion of her time was spent in aspects of school management (75.08%). On occasions when staff needed cover during a lesson or had been held up on route to school, Susan sent a classroom assistant to look after the class and did not entertain the idea of going to the classroom herself. Susan seemed to prefer her role as manager, being reluctant to run Sports Day and booking herself to be on a course on the day of the school swimming gala.

The Organisation of Headteachers' Time

In order to analyse the work of the two headteachers more closely, observational data were coded to determine the proportion of their time which was spent engaged in activities which either they themselves had determined or which was spent engaged in activities initiated by others. That is, the amount of freedom they allowed themselves or which they were allowed through the school day. In each of their cases, just a week of observational notes in which there were no time-tabled class teaching commitments was chosen. Whilst such a week can be considered to have been unusual for Susan who usually had a 0.5 class teaching commitment, the selected data were chosen in order to give a comparable number of hours for analysis. The activities listed as part of the observational data were coded using one of the four categories detailed below. When analysing the work of the two headteachers in this way, further differences in the pattern of their work emerge which highlight the differences in their management.

Scheduled	formally planned activities which are arranged in advance by the headteacher, including staff meetings, meetings with outside officials or prospective parents, routine teaching time such as assemblies also relaxation during designated breaktimes
Informally Scheduled	activities which the headteacher had not set a specific time aside for but which they knew about in advance and could be considered to have had on a written or mental list of things to do, such as ordering stationery, photocopying documents and opening the post
Impromptu	activities which are unforeseen, or done as the need for them is noticed, but which are decided upon by the headteacher themselves, such as telephoning the parent of a sick child who needs to be sent home, talking to staff who seem worried about their work or home life, mending the photocopier or relaxing in a period other than a designated breaktime
Unscheduled	activities which are unplanned or for which the headteacher has only a few minutes notice and which are initiated by people other than the headteacher, for example when parents or staff approach the headteacher, either in person or by telephone

These data are summarised in Table H6. Whilst both headteachers had their time dominated by activities which were to some degree scheduled, be it formally or informally, Brenda's work had a greater degree of flexibility built into it. Susan's work was characterised by a high proportion, nearly two thirds, of her time being set aside for scheduled meetings and activities, despite having no involvement in leading assembly that week and spending proportionately less time relaxing during designated breaktimes. This pattern of organising her work may have developed through necessity, given that half of her time during a typical week was spent teaching. Only some forty per cent of Brenda's time was spent in this way, despite her having been responsible for five assemblies and spending high proportions of break times relaxing in the staffroom. Almost a third of Brenda's time was spent on informally scheduled activities. Many of these entries involved the opening of the post, a duty which Susan left up to her secretary.

Table H6: Time spent over five non-teaching days by the two headteachers in four types of activity,

(data derived from participant observation) showing time spent on each of the activities and the proportion of all observations which that represented

ACTIVITY	SUSAN	WILLIAMS	BRENDA	JACKSON
	TIME (HOURS)	PROPORTION OF TOTAL TIME	TIME (HOURS)	PROPORTION OF TOTAL TIME
Scheduled	20.72	64.50	13.48	40.30
Informally Scheduled	6.45	20.10	10.43	31.20
Impromptu	2.03	6.30	4.48	13.40
Unscheduled	2.93	9.10	5.07	15.10
TOTAL	32.13	100.00	33.46	100.00

Table H7: Time spent over five non-teaching days by the two headteachers in four types of activity,

(data derived from participant observation) showing frequency and average duration of each type of activity

ACTIVITY	SUSAN	WILLIAMS	BRENDA	JACKSON
	NUMBER OF ENTRIES OVER WEEK	AVERAGE DURATION (MINUTES)	NUMBER OF ENTRIES OVER WEEK	AVERAGE DURATION (MINUTES)
Scheduled	19.00	65.40	31.00	26.10
Informally Scheduled	15.00	25.80	39.00	16.10
Impromptu	13.00	9.40	25.00	10.80
Unscheduled	19.00	9.30	37.00	8.20
TOTAL	66.00		132.00	

A greater proportion of Brenda's time being spent in impromptu and unscheduled activities, further reflects the value which she placed on the people around her, as much of this time was spent chatting to parents who approached her informally or in talking with her staff. Susan's rigid work pattern would reinforce the idea that she has a business-like approach to her work of managing the school, being more distant and detached from both the staff and the pupils.

Further differences arise if one looks not only at the amount of time that each of the four categories of activity took up, but also the number of such activities and average duration of each (Table H7). Brenda worked in a way which was open to interruptions and she readily admitted to having a "butterfly mind" which led her to move from one activity to another. Whilst her scheduled meetings were to the observer less 'business-like' than those of Susan's, concerning themselves in part with general conversation, they were shorter on the whole. The differences in duration of activities between the two headteachers is most noticeable in scheduled and informally scheduled activities, with differences being smallest between the unscheduled activities of each headteacher, indicating that 'outside' interruptions, such as parents seeking informal advice, were brief in duration in both cases.

Summary: the work of the headteachers

The size of school did not seem to be the dominant influence upon the working patterns of the two headteachers. Brenda's working week was broadly similar to that of the headteachers in the School Teachers' Review Body study (1996) in terms of hours worked. The similarities between schools were such that it would have been reasonable to expect that they placed similar demands upon the time of the headteachers. Further, the initiatives and developments which each headteacher were instigating might also have been expected to place similar demands in terms of time on both Brenda and Susan. Given these similarities, differences in their work appeared too great to suggest that school size was a major influence.

The evidence suggested that Grant Maintained status had a substantial effect upon Susan's style of management and consequently upon her use of time during the school day. Whilst Brenda operated similarly in some ways to other small school headteachers (Wilson and McPake, 1998), Susan had, by virtue of the Grant Maintained status of her school, employed secretarial and care-taking help which reduced the diversity of tasks which she was required to undertake. Linked to this, Susan had a more formally scheduled day and spent sustained periods of time on each activity and this contrasted with Brenda, who had a more flexible approach to her work.

The personality of each headteacher further influenced their personal style of management. Brenda was more openly concerned about her staff and their relationships and this caused her to consciously spend time during each day with them. Susan remained more detached from pupils and teachers when not teaching.

The tensions seen to exist between the teaching and management duties of headteachers with a dual role were managed in different ways. Whilst having the smaller teaching commitment, administrative tasks took up Brenda's teaching time and influenced her choice of lesson content and means of classroom organisation: lessons could not be organised so that the pupils placed high demands upon her time as she had other work to do. Brenda was also more frequently interrupted when teaching, most often by the secretary bringing telephone messages or typing queries. Susan was far more successful in separating the two elements of her work and was assisted in this by the employment of a secretary for a greater proportion of the school week and the school fax machine.

CHAPTER 6

DISCUSSION

1. THE WORK OF TEACHERS IN SMALL PRIMARY SCHOOLS

The findings presented a complex view of the work of these teachers, with many elements influencing the overall picture and interacting with each other. It was therefore necessary to tease out these elements and their influence and to find which might be attributed either wholly or in part to the fact that the case study teachers worked in small schools. The central objective of this research was to examine whether the work of the case study teachers was in any way different from the work of those teachers working in larger schools.

The Workload of the Teachers

Teachers studied by Campbell and Neill (1994) were working between fifty and fifty five hours each week. They questioned whether this was merely a temporary feature of their work, linked with the implementation of the National Curriculum and whether this was either desirable or sustainable (Campbell and Neill, 1994, p.161-162). More recent research has found teachers to still be working for this length of time and that school size did not affect the time worked (School Teachers' Review Body, 1996, Table A8). In this study, the teachers were working for a similar length of time, and longer hours pro rata in the case of the part-time staff. A closer analysis of the distribution of their time provides some evidence of the influence of the National Curriculum and subsequent reforms. Firstly, more time in absolute terms was spent teaching by all staff, than those studied by Campbell and Neill. At Pear Tree School, the removal of the afternoon break had been introduced explicitly as a policy response to the National Curriculum, giving Key Stage Two staff an extra fifteen minutes each day of teaching time. As previous research has shown, (Harrison, 1986, p.178), in small schools organisational factors, such as the ability to move all pupils through the dinner hall in under an hour (see page 100), helped to increase the teaching time available.

As with the small school teachers in the PRISMS project, the teachers in the present study had more subject responsibilities than would have been the case in a larger school and further in common with the PRISMS teachers these responsibilities were not rewarded either through increased non-contact time or pay (Galton and Patrick, 1990). The teachers' subject responsibilities were divided according to the expertise of individuals with no concession made for holders of part-time contracts. Jean had perhaps the greatest responsibility in relation to her contract, holding only a 0.4 post yet being responsible for Mathematics, Geography and Special Needs.

As has been argued, these multiple responsibilities had the potential to put a heavy load upon the teachers (see page 49), distinguishing them from teachers in larger schools with only single areas of responsibility. However, in common with the teachers in the small sample of schools studied by Richards they were largely “‘dormant co-ordinators’ for most of their subjects most of the time, and only became ‘activated’ for particular reasons ” (Richards, 1997, p.5). As with the teachers studied by Vulliamy and Webb (1995, p.35), preparation of written documentation was not a priority until it became necessary. The teachers at Pear Tree School were ‘activated’ to write planning documents by the notification of the OFSTED inspection, a feature not captured in the time diary or observation data. Whilst ‘dormant’, their roles were restricted to dealing with post which usually comprised catalogues from educational suppliers and this accounted for the very small proportion of time observed in a co-ordinator role (See Table A10 - less than two per cent of all observations). It was suggested in Chapter 2 (see page 49) that the increased workload generated from holding multiple posts of responsibility may have provided evidence about the intensification of teachers’ work in small schools. The notion of intensification is discussed below, but it is notable that the teachers in the present study had adopted a strategy for managing their co-ordinator posts which did not radically increase their work.

The long periods of time spent in preparation by the teachers in the study by Campbell and Neill were suggested to be a reaction to the new orders of the National Curriculum but they further suggested that it would be unlikely that this would decline until at least the late 1990s. The single most important determinant of time spent in preparation appeared to have been the amount of time

for which individuals were contracted to teach. Having four age groups in the class, whilst raising the absolute amount of time spent by Rosemary in preparation, did not raise her preparation:teaching ratio above that of the part-time staff, Jean and Linda. The number of age groups in the class seemed less influential on the time spent in preparation than the amount of time spent in contact with the class. This appeared to be an indication of 'teacher conscientiousness', with work expanding to fill the time available. Full-time teachers are naturally restricted to time in the evenings, and at weekends to complete work, yet it would seem that those teaching for only part of the week used their spare time, what they called 'days off' to work. Previous research, whilst using only a small sample of teachers, has shown time on preparation to increase in line with teaching duties (School Teachers' Review Body, 1996, Table A20). The part-time teachers in the present study may, as a sample, have displayed extreme examples of conscientiousness.

The detail provided by this study allows for the notion of teachers having 'extra' duties to be explored. Over the period which the observer was in the schools, evidence of such 'added' commitment did not take the expected form of running clubs, or doing more playground duties than would have to be done by teachers in much larger primary schools. It could be argued that the case study teachers, as individuals were rather less conscientious and dedicated to their work than teachers in previous studies, and did not feel it a requirement to offer out of school activities.

The fact that there was only a small staff, in some respects led to a lower workload in terms of scheduled time spent on work, than would have been the case in larger schools. Most obviously, the small numbers of staff almost eliminated the need for staff meetings, with only one being held over the period of research. Staff had informal discussions, the assumption seeming to be that with such small staffrooms, there was no possibility of groups of staff having isolated discussions. Communication was theoretically very good between staff, but this has not always been found to be successful in practice, being seen to be "part of the head's role to ensure good communication is maintained" (Cave and Cave, 1982, p.45). It seemed that this reliance on informal meetings was an optimistic approach to the dissemination of important information, as there was no guarantee that part-time staff would be updated. The part-time staff missed the opportunity to keep up with

day-to-day events and for them this was an inefficient system. It could be argued that this led to more time being spent on an informal basis catching up with news at breaktimes at the expense of time spent during these periods in relaxation. This was especially the case for Rosemary (see page 217).

Small School Syndrome

Size of school has been found to have no direct influence the overall workload of teachers (School Teachers' Review Body, 1996, p.5). However, as has been discussed earlier (see p.40), teachers in small schools have been found to have a wider range and heavier load of non-teaching duties than their colleagues in larger schools (Galton and Patrick, 1990) and to spend significantly more time on administrative tasks (Campbell and Neill, 1994, p.115). The teachers studied by Campbell and Neill (1994) recorded significantly longer time supervising children (AS), be it on playground duty, waiting for them to get changed, go to the toilet, take their coats off at the start of the school day or be collected at the end of the day. In the present study, a large proportion of work was coded in this way, but for two reasons the time was exaggerated beyond that in the study by Campbell and Neill. Firstly, as Key Stage Two teachers, the time taken by their pupils in the cloakrooms, toilets and changing rooms would have been shorter than for the less adept Key Stage One pupils who made up part of the Campbell and Neill sample. Secondly, Campbell and Neill (1994) similarly attributed the higher proportions of time spent in supervision of pupils in small schools to be related to the extra playground and lunchtime duties although this point is questionable as it is possible that teachers recorded such activities with the alternative code of 'Breaks - not free of work': the same interpretation as teachers gave to the ROTT schedule in this study.

Galton and Patrick (1990) found job satisfaction to be high in small schools and to stem from what has been described as the "family atmosphere" (see p.40) which has frequently been claimed to exist in small schools (Gregory, 1975; Bell and Sigsworth, 1987, Hopkins and Ellis, 1991, p.117, Webb, 1993, p.4). In the interviews Jean, as with the other teachers, confirmed that some of her job satisfaction stemmed from her perceptions about the close relationships which could be built up with

pupils in the small school (see p.236). Campbell and Neill suggested that extra time spent in administrative tasks reflected teachers willingness to work 'beyond the bond' (Tomlinson, 1992, p.31) "in return for the satisfactions of teaching in a small school" (Campbell and Neill, 1994, p.115). Whilst the teachers in the present study viewed some reward to come from working in a small school and, as with teachers studied previously (Campbell and Neill, 1994), recorded more time to be spent in aspects of administration, the observational data from this study allowed for a more detailed analysis of the link between job satisfaction and willingness to complete extra work: what has been termed "small school syndrome" (Campbell and Neill, 1994, p.115).

Examination of the field note evidence of time spent in supervising children indicates that, it was often not a willingly undertaken task and certainly not a reflection of the teachers' desire to work 'beyond the bond' and not an obvious source of job satisfaction. Three situations illustrate this. Firstly, much of the time which Mike spent in supervising children was at lunch and breaktimes when he kept his class in as punishment. Secondly, in all classes, before the school day began, pupils had the choice of going into the classroom where they chatted quietly: whilst these periods were coded as supervising children, the presence of the teacher was incidental. These were really times when the teachers' work was reduced: in a larger school one or two members of staff would have been required to be on duty in the playground, yet at each school no members of staff had duty before school. Thirdly, and most notably, children were often collected very late by their parents both because of roadworks for the duration of research at Pear Tree School and the distance which had to be travelled by parents to Haybarn. Teachers 'supervised' children whilst they collected their things up to take home and then would usher any remaining stragglers to wait with another staff member or alone outside the school office. This was considered a nuisance by all staff, who, if all children departed promptly would have a more accurately described attitude of trying to 'race the children out of the door and home'. None of these situations gave the researcher any cause to feel that the teachers were willingly giving up their time to be with pupils.

The Influences of Career History and Home Life

The exceptional nature of teacher conscientiousness has been discussed previously by Campbell and Neill (1994) who found it to be a factor which was highly influential to teachers' working time. However, they argued that conscientiousness was "positively and strongly associated with age and years of experience, both for the whole sample . . . and for the Key Stage 1 teachers . . . , though not for the Key Stage 2 teachers" (Campbell and Neill, 1994, p.219). Further, they speculated that either more recent training, life style or stage in life history reduced the commitment of younger and less experienced teachers to working long hours beyond the school day. In terms of the absolute hours worked, Campbell and Neill (1994, p.219) felt that the correlation between conscientiousness and age / experience deserved further research. The detail collected on the work patterns of the teachers in this study allows for some further comment and speculation on the correlation between the influence of career history and the degree of commitment to working 'beyond the bond'. It has already been noted that as a group the teachers in the present study may have been exceptionally conscientious

Certainly Mike's home life influenced his work patterns. Being the only one in the sample to have a young family, his comments confirmed the ROTT evidence that he did no work at home in the evenings until his children had gone to bed. From the available evidence, it cannot be determined whether these family commitments reduced the time over which he worked, in the sense that he worked more efficiently by fitting all which had to be done into a shorter time, or merely delayed the time at which he worked. Further, he completed much work at school before returning home each evening. When he left school, unlike all of the other staff except George, he took very little with him and he returned with very little in the morning. By keeping exercise and resource books at school, he restricted the time available to him to complete work. The other teachers carried large plastic boxes filled with children's work, record books, half-mounted displays and teachers' books, with them at all times. It would seem that had this work been left at school, they would not have returned to do it. Being at home, their 'conscience' drove them to keep working. Linda had the highest preparation:teaching ratio, perhaps because not only did she have most days off, but further

her sons were teenagers and therefore relatively independent and her husband was a professional working long hours, leaving her alone and with plenty of time available.

The contrast between Mike and Linda could also lead to speculation about the intensity of their work: for Mike, he coped with the sole responsibility of teaching his class in fewer hours pro rata than Linda who had only certain subjects to teach and had no overall responsibility for the pupils. Mike fitted this into a proportionately smaller amount of time perhaps suggesting that his rate of work or amount of time on-task was higher than Linda's. For Mike there was less opportunity to stop for a cup of coffee for example as he was working to the clock: trying to get finished each afternoon before returning for the family tea. The available evidence gives only a measure of time on work and not of efficiency. It cannot be determined whether the part-time staff were completing more work or spending longer than Mike on the same amount of work.

The ROTT and interview data showed Mike to view work differently to the other teachers and it was his previous employment which appeared to have shaped his notions of work. Mike used only the AB/AF coding during morning break times. However, he used the codes of preparation, supervision of children and staff meetings in addition to these during lunch times. What is notable in his recording is his use of the code 'AB - break free of work'. Mike was unusual in that he used this to record breaks before 9.00 a.m.. From this, it can be assumed that he saw the time before the start of school to be officially 'work time' and so a cup of tea during this period was in his view a break. This interpretation may be supported by the fact that Mike was the only class teacher completing the ROTT to have been employed in work other than in primary schools. He had formerly been employed as a manual worker in market gardening, employed to work defined hours with defined breaks. From his interview he seemed to regard all of the tasks he was required to do as part of his job, "It depends whether you look at extra work as stress. I tend just to look at it as extra work, you know. Its just work anyway. I just get on and do it. I suppose if you felt as if you should be within these bounds here (gestures with hands) then it might be extra, but I don't tend to think of it like that."

Mike had different expectations about his workload to the other teachers as well as the differing view that his workload was manageable and could be completed within reasonable parameters, his work was time-constrained. It seemed that whilst he controlled the hours in which he worked, he did not have concerns about the quantity of work which he had to do. The teachers who had only worked in schools, not only seemed less able to contain their work than Mike but also less willing to take on board new responsibilities.

The Part-timeness of Teachers' work

What can be identified from the findings is that some of the part-time staff felt compelled to work on days on which they were not at school and this was discussed by Linda, Jean and Rosemary in the interviews. There was a commitment by these staff to fulfilling their responsibilities to their colleagues. This took the form of being present at formal school events, where the absence of an individual would have seemed perhaps unfair to other teachers. Linda as a part-time teacher described her work as an 'expensive hobby', this related to the hours which she put in on days when she was not time-tabled to be in school. She went on school trips and was in school on training days even if they fell on her 'days off' and also attended events such as Sports' Day, Harvest Festival and the Christmas concert. Also, it was necessary for her to attend, for example, all Parents' Evenings. This suggested that she was indeed in some ways working 'beyond the bond' as were Jean and Rosemary, but again, it was not undertaken with 'a glad heart'.

Working 'at the bond'

The case that the part-time staff in this study were able to give more to their work, in terms of time at least, than would have been the case if they were full-time, is strong for all but George. The data for George were incomplete and therefore very little of the wider picture of his work beyond the school day was captured but the available evidence still showed him to take on a role which differed from the other part-time staff. Over the period at Pear Tree School, George did not attend any meetings concerning the wider running of the school at an administrative level or any of the whole school activities (see p.204). Had his contract been for a greater proportion of the week

then it would have been essential for him to contribute more to the life of the school. Having only a 0.2 teaching contract allowed him, in many respects, to be so part-time that he assumed the role of a peripatetic teacher and was treated by colleagues as such. He worked independently of the rest of the staff, this was especially true in the case of Mathematics (see page 201). Whilst displaying no lack of commitment to his teaching, he certainly kept himself distant from the wider running of the school.

The notion of George more as a peripatetic teacher than a part-time member of the staff extended beyond his own work patterns to the expectations which other staff had of him. He was a part of the staff but not a contributing team member. No comment was made about his absence from training days and staff meetings and Linda and Jean did not consider that there was a need to liaise with him, even though there was some overlap between them in the curriculum areas which he taught.

Data concerning the other part-time teachers demonstrated that they were spending far more time on work pro rata than Mike, especially more time on preparation. Of them, Linda, with the least contracted teaching time worked the longest hours pro rata. Without George, this evidence could be taken to suggest that the work of the teachers expanded to fill the time available. Four possible explanations exist for the difference in findings between George and the other staff. Firstly, that no link existed between staff expectations, school-based observations and the work which George completed at home, and that had ROTT evidence been available it would have shown George to be working even longer hours than Linda. However, there was no evidence from conversations with George to suggest that this was the case. Secondly, of the part-time staff George was far more efficient, fitting his work into time at school; the absence of any formal record-keeping or of any liaison with colleagues indicated that this was not the case. Thirdly, that at a point on the continuum between a full-time post and a 0.1 post there is a shift in staff expectations of their colleagues. This is unlikely as Linda taught for only one session a week more than George and her responsibilities involved teaching Science, Swimming and elements of English similarly self-contained subjects to Music, Design Technology and elements of Mathematics which George

taught, yet expectations for each of them were so different. She was expected for example to attend staff meetings and to organise the Swimming Gala and Jean felt it necessary to meet with her each week. Finally, that individual conscientiousness was the most important influence upon the time which teachers' spent working. This appears to be the most likely explanation. George's career history, namely having taken early retirement from a headship, may have contributed to his reticence: he had effectively chosen to step back from all aspects of administration and to return to the classroom. Rather than giving any commitment to working beyond the bond, George was working 'at the bond'.

Confidence in Delivering the Curriculum

In common with small school teachers studied previously (Shropshire Education Service, 1995, Hargreaves *et al*, 1996, Richards, 1997), teachers in the present study expressed confidence in delivering the National Curriculum in all but a narrow range of subjects, namely Information Technology and Music (see pages 234-235). These are subjects which cause concern to all teachers, regardless of the size of school in which they work. The degree of confidence felt by the teachers in the present study was not measured, but in both the interviews and informal conversations they did not express any great concern about their subject knowledge and it was felt that confidence was relatively high. The INCSS teachers reported higher levels of confidence and competence than had been found in other studies focusing on teachers from larger schools and it was concluded that this was a notable difference between teachers in small and larger schools (Hargreaves *et al*, 1996, p.94). However, in the present study, all but Mike had a part-time teaching commitment and therefore had more specialist roles in the classroom. Thus, not only did the part-time staff have more time free to complete work, they had fewer subjects upon which to focus. In this way, it was their part-timeness which was influencing their perceived confidence levels.

Concerns have been voiced about the ability of staff in small schools to deliver the National Curriculum (Audit Commission, 1990; Alexander, Rose and Woodhead, 1992) due to the limited expertise which a small staff will share. At Pear Tree School, the number of staff employed to teach the Year 5 and 6 class and the variety of expertise eliminated this problem. Between the three

teachers, their initial training had focused on Special Needs, Physical Education, Social Science, English and Geography and over their careers they had come to consider themselves specialists in Mathematics, Science and Music. Rather than a more narrow range of expertise, the pupils in their final two years at Pear Tree School had access to teachers with an exceptionally wide range of skills and knowledge. Whilst not so great, the combination of Susan and Rosemary at Haybarn School gave pupils access to teachers who were specialist in Science, I.T. and Mathematics and who had differing personal interests: history and sport. Small schools have been found to employ flexible staffing structures (Richards, 1997, Webb, 1993) to assist in the delivery of the National Curriculum through specialist and semi-specialist teaching roles, notably through the use of part-time staff in classes where they make up the rest of the staffing quota to the headteacher (Vulliamy, 1996, p.20) In the case of these two schools, it would seem that this is a successful means of ensuring pupils have access to a group of teachers with confidence and expertise to teach a broad curriculum.

In considering the work of teachers in what has become an increasingly market-orientated education system, one must examine the issue of the value for money which any teacher gives to a school. In carrying out this research, it has been argued that small schools should not, in the light of their increased cost per pupil, provide equal value for money, but might be expected to give better value for money than their larger and more economical equivalents (see p.55). Part-time staffing appears to be far more of a feature in small schools, notably in the case of the class of the teaching head, often shared with a class teacher for a proportion of the week and it may be in this staffing sense that small schools can legitimately consider themselves to be a special case (see p. 54 - 55). Implications exist here for policy, as to employ teachers on a job share basis would appear to have the advantage of maximising the amount of work, in terms of quantity if not quality, put in to the education of each class of pupils and broadening the knowledge base of staff. Whilst full-time teachers provide consistency, a feature argued to be advantageous to the social development of pupils in small schools where they stay with the same staff member for several years (Gregory, 1975; Scott, 1982), part-time staffing provides different advantages which are more geared to the delivery of a statutory curriculum.

Classroom Practices

Curriculum Organisation

In the small sample of schools studied by Webb (1993), there was found to be “the same diversity of curriculum and classroom organisation as that found in the larger schools” (Webb, 1993, p.4). Similarly, the PRISMS teachers described a curriculum similar in its content and organisation to that in larger schools (Patrick, 1990, p.41). Since the introduction of the National Curriculum there has been a move towards a more subject-based approach to teaching in primary schools generally and this has been found to be a trend continued in small schools (, Vulliamy and Webb, 1995, p.34; Richards, 1997, p.6). Hargreaves (1990) found that, whilst the evidence had to be treated with caution, “for about three-quarters of the time almost all the pupils in any class were engaged in the same curriculum area” (Hargreaves, 1990, p.101-102) and that this was supported by the observations in the ILEA study (Mortimore *et al*, 1988). Whilst the present study provides only a snapshot of the curriculum in the two schools it was clear that, in line with research concerning schools of all sizes, the teachers had come to teach largely through subject-based work. Further, analysis of observational data regarding teaching time and curriculum area (see Table A8) showed teachers to record teaching single subjects for three quarters (75.56%) of all teaching time.

The proportion of a full-time contract which each teacher held and curriculum areas which they were required to teach influenced the amount of single and mixed subject lessons which were organised. George taught discrete subjects and ensured that each lesson was either self-contained, as in the case of Music and Mathematics, or part of a rolling project, with all pupils starting and finishing each piece of work on the same day, as with Design Technology. This meant that ‘finishing off’ lessons in which pupils worked on a variety of subjects was unnecessary. Thus, George did not organise any mixed subject teaching. In contrast, the other part-time staff set aside time each week in order for pupils to finish work, seeing this as necessary because they worked to such a tight schedule. Such means of completing a weekly quota of work was effective in ensuring that all pupils covered a minimum amount of work and therefore maintained a pace. This was not achieved by Mike, the full-time teacher, who required pupils to finish off work in odd moments.

This was usually neglected and many pieces were never completed: time was not built in to the day to chase up work.

Classroom Organisation and Teaching Styles

It has been claimed that “teachers in small schools must ensure that their pedagogical methods and class organisation are appropriate and relevant. In mixed age range classes teaching approaches need to be flexible and based largely on individual and small group activities rather than on class lessons” (Hopkins and Ellis, 1991, p.119). In the present study, only Rosemary organised individual activities for pupils and this appeared as a reflection of her own philosophies and not a response to the four year age range in her class (see p. 222).

It has been claimed that since the introduction of the National Curriculum, there has been a shift towards whole class teaching (Webb, 1993a). Whilst it has been argued that this shift, if it has occurred, has only been modest (Galton *et al*, 1998), it seems to have been a consistent finding that groupwork is the least used means of classroom organisation in schools of all sizes. The limited amount of groupwork used by the teachers in the present study, despite the class layout of groups of tables pushed together matched the previous study of mixed age classes which found that whilst pupils sat in groups, “the groups rarely operated as groups” (Bennett, Roth and Dunne, 1987, p.45). The teachers in the present study organised pupils into groups most frequently as a response to either limited resources and the pressure of time, on other occasions group teaching was recorded when pupils separated to work with additional adults, most frequently for sports.

The PRISMS study demonstrated that patterns of pupil and teacher behaviour were similar in both small and large schools (Galton, 1993, p.16). The data derived from the participant observation in the present study provided a wealth of detail about the means in which each teacher organised their lessons. There were distinct differences between individual teachers and similarly large differences in the way in which each individual taught each area of the curriculum and each lesson within that. The diversity in styles both within and between teachers points to the fact that it was not the mixed age classes and by implication the size of the schools which was influencing their work.

Differentiation, catering for multiple age groups

Teachers in small schools have claimed that by having had mixed age classes, differentiation was a feature of their teaching prior to the introduction of the National Curriculum and its assessment. A variety of means of differentiation were employed by the teachers in this study. Most commonly, for English and Mathematics, differentiation was achieved through setting groups work from different stages in published schemes. In all other areas of the curriculum, differentiation by outcome or expectation were most common. In this sense, strategies for differentiation were similar to those employed by the teachers studied by Mortimore et al (1988, p.86-91). The time spent by Rosemary with pupils working on individual tasks was more a reflection of her personal philosophies of education, than a response to the four age groups within her class. She had commented informally that she had always preferred to spend time working with individuals and during the interview had noted that she often wondered if she spent too much time in this way.

In whatever way teachers differentiate, increased differentiation can reasonably be expected to take an increased amount of preparation time; even differentiation by outcome should require more time to be spent in assessment and recording. The high amounts of time spent in preparation by the teachers in this study did not however reflect delivery of highly differentiated lessons. Evidence of Linda's work proved to be the most extreme example of this. Despite very high amounts of time spent in preparation for every hour of teaching (see Table A5), Science and English lessons were directed to the class as a whole and periods coded as group teaching reflected periods when only part of the class was present, for which she similarly directed her work to the group as a whole.

Work focusing upon only one curriculum area, yet effectively differentiated for all pupils has been linked with greater pupil progress (Mortimore *et al*, 1988, p.253). In the present study, a subject-based curriculum was adopted in each school and further it was most usual for only one curriculum area to be the focus of each lesson. This trend has been seen to occur in both small schools (Vulliamy, 1996, p. 5) and schools of all sizes (OFSTED, 1999a, p.84). Whilst the data indicated that the teachers spent high proportions of time working with individuals, this time was

often concerned with monitoring whilst pupils worked on broadly similar, or indeed the same, undifferentiated tasks. Higher proportions of time were observed as being spent on delivering the basics of English and Mathematics than have been found in previous research. It could be argued that the teachers in the present study, rather than delivering a broad-based and differentiated curriculum were delivering, if only marginally, a narrower curriculum than those studied previously, with only limited and often informal differentiation.

The Individual in the Small School

Galton and Patrick concluded that “teachers in small schools do not differ markedly from their colleagues in larger institutions” (Galton and Patrick, 1990, p.25) and in many respects this is supported by evidence from this study. One difference did however appear between the case study teachers and others in larger or less rural schools. The small numbers of staff allowed for a greater tolerance of individual eccentricities. The debate surrounding the continued existence of small schools has produced extremes of viewpoint in terms of describing what small schools are like. These extremes have been acknowledged to contain “some element of truth” (Galton and Patrick, 1990, p.25) and this study provides some evidence of why the romanticised notions of life in the small school have persisted.

The notion of each child being more greatly valued in the small school, and being allowed to develop fully as an individual, applied equally to the staff. This was particularly true at Haybarn School. Throughout her career, Rosemary had taken every opportunity to further her training and appeared the most reflective teacher of the group (see pages 206-207). Despite this, some of her practices were reminiscent of the myth of the pre-war village schoolteacher. Most memorably, when she left the school premises without a formal hand-over of responsibility and her practice of catching up with marking in the annex to the classroom (see page 224). Further, Rosemary took the class on a walk around the local farmland, walking down the country roads which were without pavements without any additional adults or the collection of parental consent forms and on one occasion two Year Six pupils were sent to run an errand in the village, leaving the school premises

unaccompanied. Such idiosyncrasies would not have been tolerated in larger of urban schools and would have been more visible in schools where the traffic of adults, be they other staff, parents or classroom assistants, past the classroom would have been greater. The fact that no parents responded to finding out that their child had been left unsupervised, but for an unknown visiting researcher, suggests either a class of very secretive pupils or a difference in parental expectations from the norm in other schools.

If such practices extend to other village schools, then it is easy to see why the romanticised myth of the village school has persisted into the 1990s. Whilst Rosemary kept up-to-date with research and clearly worked hard to fulfil all of the requirements of her job, there was still an element of her practice which was so outdated it appeared eccentric, yet was tolerated by pupils, parents and most notably, Susan the headteacher. To a lesser extent, *this tolerance towards* individuals extended to George at Pear Tree School. As has been described, *his part-timeness was* such that he worked in school almost as a peripatetic teacher with no wider responsibility to the running of the school. Despite this, he had a class responsibility and in a larger school it would seem impossible to imagine that he would have been allowed to miss training days, let alone for the staff to share a joke about his absence.

The Work of the Headteacher of the Small School

Identifying a Style of Management

Alexander identified four styles of headteacher (see page 254). Despite very similar circumstances, the management styles of both Brenda and Susan do not lend themselves easily to any one of these categories. At best, each is a composite of two or three of his categories of the 'boss', the chief teacher, the managing director or the team leader. In the present study, the headteachers adopted differing management styles. Brenda took on a wider range of duties than Susan, but limited the hours in which she worked, still managing to avoid imposing extra duties, such as taking assembly, on her staff. She concentrated on promoting staff morale and on enabling the staff to work to the best of their ability. To a large extent this mirrored the 'situational management' strategy employed by

teachers in small Scottish primary schools (Wilson and McPake, 1998, see p.45). Brenda nurtured relationships and developed her team using largely informal consultation rather than delegation. Part of Brenda's role was as "site manager" (Razzell, 1993, p.7), which Razzell (1993) considered to be characteristic of headteachers in small schools where there was no caretaker or deputy headteacher.. In contrast, Susan's style was a response to high administrative demands and was made possible by the Grant Maintained status of the school: she was able to employ both additional secretarial help and a full-time caretaker.

It may be argued that in these two cases, the same degree of diversity existed amongst the two heads in terms of their management styles as exists in primary schools of any size and there may be no 'special case' example of the small school headteacher, no stereotype to which they conform. If this is so, then the data gathered on the work of Brenda and Susan could be found in schools of all sizes, making these two case studies representative of at least some headteachers' work in the late 1990s.

The Workload of the Headteacher

It has been argued that the teaching head faced three types of difficulty in their work: managing their teaching and administrative workload, giving class responsibilities priority when teaching and maintaining their position as curriculum leader (see p.41). All of these factors have been identified as being of particular concern to headteachers in small schools (Boydell, 1990; Last and Murphy, 1998).

Last and Murphy claimed that the Oxfordshire small school headteachers in their sample faced a "workload crisis" (Last and Murphy, 1998, p.14), which was primarily attributed to excessive paperwork. Whilst the absence of a time diary made it difficult to quantify the hours which Susan worked, evidence from informal conversations made it appear that Susan worked longer hours (see page 241) than Brenda. This should be treated with further caution as with only half of the school week free of teaching it may have been that the hours which Susan spent in managing the school were similar to those of Brenda. Whatever the relationship between the time spent by Susan and Brenda on

administration, it was clear that Susan managed her workload by delegating duties to her staff and by employing extra administrative staff. The delegation of work to administrative staff and deputy headteachers was found by Arnold (1994, p.391) to relieve overload in larger schools but to be impossible in small schools where the staff were simply not available. Campbell, Neill and Halpin (1995) argued that in Grant Maintained schools, such investment in support staff was more typical of the secondary age range, whereas in primary schools investment was in teaching staff and resources. In the case of Susan, it would appear that, possibly due to the small size of the school and therefore her high class teaching commitment, her priorities in respect to staffing were different to those of the headteacher of the typical Grant Maintained primary school, without a class teaching commitment.

Grant Maintained Status of a Small School

In the study by Campbell *et al* (1996), the gaining of Grant Maintained status was found in the primary phase to lead to substantial improvements at classroom level, “most notably reduced class size and increased para-professional support in classrooms (Campbell *et al*, 1996, p.246). They argued that this contrasted with secondary schools which became Grant Maintained. In the secondary phase where “management and the physical environment of the school are the main beneficiaries of the increased resources, while pupils and teachers, at least in respect of class size, are not” (Campbell, Halpin and Neill, 1996, p.253). The sample of primary schools was small (46 representing only eleven per cent of all Grant Maintained primary schools at that time) and comprised schools which were “substantially larger than primary schools generally in England and Wales” (Campbell *et al*, 1996, p.252). Most had decided to seek Grant Maintained status in order to attract additional funds and become independent of the LEA.

The headteachers in the present study had different priorities in the way in which they spent their time. Brenda concentrated upon promoting staff morale and motivation and on carrying out often mundane duties in order to ensure the school ran effectively. Often she responded to situations because there was no-one else to deal with them. Susan’s work was far more concerned with promoting the image of the school. She had handed over the routine administrative tasks to the secretary and relied upon the caretaker to deal with any day-to-day maintenance tasks. The Grant

Maintained status of Haybarn School had allowed flexibility and the funding for additional secretarial assistance. In this sense, Susan appeared to be following a model of investment which was closer to the secondary model described by Campbell *et al* (1996). The secondary model focused upon investment in what was termed "externalised attributes . . . most easily projected formally on public occasions like open days and evenings and through brochures and prospectuses" (Campbell *et al*, 1996, pp. 254 - 255). Whilst Haybarn School had smaller class sizes and more classroom support than Pear Tree School, investment was concentrated in such externalised attributes and this was also true in terms of where Susan invested her time. She was very visible at the school gate, and events where parents attended .

The adoption of a secondary style of investment was most easily explained by the fact that Haybarn School had become Grant Maintained in order to avoid closure due to falling numbers on roll. In order to survive, Haybarn School needed a public image which would attract parents, therefore this was a necessary response. Whilst this study only provides evidence about one such Grant Maintained small school, it does however provide an alternative description to that of Campbell *et al* (1996).

The 'Small School Headteacher'

Gregory saw that those primary schools with fewer than a hundred pupils on roll were "excellent training grounds for head-teachers" (Gregory, 1975, p.81) as the administrative demands in a small school were similar to those in a larger school, but "on a more manageable and personal scale" (Gregory, 1975, p.81): in such schools there was no chance of the headteacher relinquishing all of their teaching and becoming a full-time administrator. The experience of managing a small school was seen by Davies as of great value "for future heads of large schools, lecturers, inspectors, advisors or administrators . . . not paralleled by the experience of the deputy head in a large school for the ultimate responsibility for decisions and policy making lies with the head" (Davies, 1975, pp.77-78). He argued that this experience was of relevance to both future heads in urban primary schools and the heads of year groups in middle and high schools.

The two case studies discussed here portray two headteachers with very different ways of organising their time and leading their schools, despite great similarities both in their circumstances and their wish to develop the schools which they run. From the evidence available, neither matched the 'special case' stereotype of a small school headteacher: one who has been appointed to their first headship before moving on to a larger school. Brenda had experience as acting headteacher in her previous school and when asked whether she would wish to move on she expressed some uncertainty; she felt that whilst Pear Tree School still had areas which needed attention, then she was still needed there. If she did move on, she commented, it would be for a higher salary and for different challenges: she did not see the work in a small school to be easier than that in a large school, in fact she felt it was harder. Susan also had long term plans for her school and seemed settled in building up 'the business'. In the case of these two headteachers, their aspirations seemed to match those of the headteachers of larger schools. The traditional view of the small school headteacher as simply a teacher in charge of colleagues and pupils (Dunning, 1993) did not apply, nor did the notion that these headteachers were 'in training' for a post in a larger school.

The one feature common to both headteachers, was their innovative nature and it could be argued that this resourcefulness is the feature which *is* particular to the headteachers of small primary schools for one of two reasons. Firstly, such innovation is more visible in the small school whereby the nature of the smaller staff and absence of a deputy, there is less resistance to the disturbance of the status quo, thus headteachers in small schools have more power to make changes. Secondly, in order for their schools to survive closure from falling rolls, headteachers in small schools must be radical in their thinking and approach to their schools and have a clearer and more purposeful vision of that which they want to achieve.

The concerns traditionally voiced regarding the quality of education received by pupils in the classes of teaching heads, dating back to before the implementation of the National Curriculum (NAHT, 1975; Last and Murphy, 1998) could be upheld to some extent from the evidence from this study. Making the move towards having little or no teaching commitment made it difficult for Brenda to divorce herself from her management role whilst teaching. The limited secretarial help at Pear Tree

School accentuated this. Observation of Susan demonstrated that a division could be made between the two elements of her job. Whilst this had a positive effect upon her time in the classroom, her separation from the pupils and teachers when in a managing role caused her to be much less visible to her teaching staff than Brenda. The findings suggest that the level of distraction was determined by the priorities of the individual. Whilst having a greater teaching load, Susan spent only a minimal amount of time on school management tasks during her time in-contact with pupils. Brenda, however, routinely took her administrative work to the classroom (see page 248) and whilst she gave every child who sought help her full attention, her lessons were arranged to allow her as little interruption as possible.

Evidence of Intensification

In Chapter 2, it was suggested that teachers in small schools may provide the best-case examples of teachers who have been subject to an intensification of their work. The propositions regarding intensification made by Hargreaves (1991, cited in Campbell and Neill, 1994, p.209-210) are considered with respect to the teachers in this study in the paragraphs below.

Firstly, it was asserted that intensification leads to less time available for relaxation, to keep up with one's field and for interaction with colleagues. The snapshot of the work of these teachers showed that on the whole some or all of each break and lunchtime was spent working, as was time before school. At Haybarn School, however, breaktimes ran over, usually extending on sunny afternoons to half an hour (see page 217). In these instances relaxation time was gained at the expense of teaching time.

Secondly, intensification was seen to create such an overload of work that dependency on outside experts was necessary. Diversification of responsibility also, it was proposed, increased dependence on experts. In this study, excessive consultation with outside experts was not observed in the form of meetings or telephone conversations. In the wider sense, whilst the reading of professional journals was not frequently recorded on the ROTT schedules, when interviewed all

teachers talked about the research and reading which was necessary to deliver the National Curriculum.

The proposition was put, "Intensification is voluntarily supported by many teachers and misrecognised as professionalism." (Hargreaves, cited in Campbell and Neill, 1994, pp. 209-210). The holding of areas of curriculum responsibility would seem to be one obvious area where teachers, whilst experiencing an intensification of their work, would feel themselves to be acting as informed professionals, able to advise and help colleagues and influence school policy. The multiple responsibilities which the staff held were not in fact considered in this way, nor did they contribute greatly to the observed and recorded work of the teachers.

This may link to the further assertion by Hargreaves that with intensification, the quality of service was reduced as it encouraged the cutting of corners. In the case of these teachers there was no direct evidence of this happening at classroom level. However, the minimal time spent on curriculum management, at Pear Tree School the writing of policy documents only when required by OFSTED and at Haybarn School the absence of many policy documents altogether, may be a reflection of the cutting of administrative corners. The only remaining possible supporting argument for this proposition could be that the part-time staff worked such long hours in order to avoid cutting corners, being driven by their conscientiousness. However, as has been noted, no data were collected which could be used to indicate that they were any more efficient than Mike Harris.

The added commitment of staff whilst not apparent in terms of taking on 'extra' work seemed to be present in other forms. The extra hours of preparation completed by the part-time staff, particularly Jean and Linda, point away from the suggestion of a lack of dedication, at least on an individual level. A more logical explanation seems to be that the schools were organised such that the staff were not required to spend more time than necessary on their 'out of lesson time' work. The lower number of pupils was used to advantage, despite the limited resources in terms of staffing. Most significantly, breaktimes were organised such that only one member of staff was on duty. No lunchtime clubs ran and the only after school club which ran was at Haybarn School when children

practised for the county sports events two hours a week in the final half term of the academic year. The insistence of both headteachers that their staff did not attend assembly, unless, in the case of staff at Haybarn School, it was their day of the week to lead the school in the Act of Worship, was a conscious effort to provide some form of non-contact time each day, in a situation where lack of finances prohibited official non-contact time.

Whilst teachers in this study were observed to carry out some maintenance duties, the schools were organised such that this element of their work was kept to a minimum. At Pear Tree School, Brenda the headteacher took it upon herself to attend to anything which needed doing, summed up one morning by her comment, "I've done some of the OFSTED form, seen an irate parent, unblocked the boys toilets and served dinners and it's only one o'clock!". Problems which proved to be beyond Brenda's ability, for example mending the overhead projector, were sorted out by Mike or George, as the men in the school. At Haybarn School, maintenance duties fell to the caretaker, who lived in the village and always seemed to be on-hand and available to sort problems out. Whilst the disposition of the caretaker at Haybarn School was no doubt a factor in her willingness to 'help out', it was clear that Susan expected her to be available to sort problems out. The caretaker's presence in the school as a lunchtime supervisor meant that she was never far from the school, opening it in the morning, returning at midday and again at the end of the school day. The maintenance duties carried out by staff in each school were again kept to a minimum by effective management strategies: in Brenda's case, she followed her own philosophy of 'If you want a job doing, then do it yourself' and in Susan's case by using the school caretaker and all other sources of labour, including her own non-English speaking au pair, to carry out tasks. What was perhaps unusual in these two schools, was that the governors were distant from the day to day running of the buildings.

2. METHODOLOGICAL ISSUES

Whilst the data in the preceding chapter showed that the work of the case study teachers, rather than being different to their colleagues in larger schools, was very similar, there were certain limitations to the data which need to be borne in mind when examining the findings.

The Nature of Case Studies

Above all other considerations, it must be remembered that this research provides data regarding the working lives of just seven individual case studies and therefore findings are inherently restricted to those teachers. Generalisations to the wider population of teachers working in small primary schools cannot be made but the close scrutiny of the individuals studied here can be used to compare with existing other research as well as to inform future research. The incorporation of multiple data sources and use of triangulation created a set of data for these teachers which took the level of detail beyond that which would be obtained in a larger study. The differences between individual teachers were considerable and because of this, the aggregated data of all seven teachers is most useful as a point of reference from which to examine the work of the teachers individually.

The Comprehensiveness of Data

Full access to all aspects of school life was allowed, with the exception of those meetings involving the headteacher considered to be sensitive or confidential. In this sense, the data collection process was comprehensive, yet despite the very large quantities of data which were collected, some of the individual profiles were incomplete. The absence of both the data regarding Susan's work outside school hours and of interview data weakened the profile of her work considerably and also restricted any comparative analysis between herself and Brenda. The similar lack of data for George also meant that only a partial view of his working life could be presented. Problems in the collection of data for Susan and George appeared to stem from an unwillingness on their part to complete both the ROTT schedule and interviews and also their failure to be persuaded of the importance of these tasks to the research. In the case of other staff, notably Mike and Linda, outside commitments on the

part of the researcher led to an imbalance in terms of the days of the week over which they were observed.

Selection and Treatment of the Data

Stake claimed, “Many a researcher would like to tell the whole story but of course cannot; the whole story exceeds anyone’s knowing, and anyone’s telling” (Stake, 1996, p.240). In this study, coding to reduce extensive field notes to numerical values was seen to be less than ideal in retaining the wealth of detail contained within the notes. However, the decision to do this was made as the quantity of data gathered over the months spent in the two schools was so vast that without effective management, the raw data could not have been made sense of.

The quantity of field notes meant that only selected examples could be used in the final text and that far more has been omitted than has been included. Extracts have been taken as illustrative examples. However, they fail to portray the full variety of events, situations and activities which were witnessed by the observer in what amounted to almost a whole school year in the two schools. It was hoped that those which were provided gave the reader a flavour of the typical events in the teachers’ working lives, with the more unusual occurrences being incorporated into the body of the text. Accurate portrayal of the data is further limited as the use of punctuation can in no way fully convey the subtleties of meaning, tone and expression with which the teachers spoke during both the informal conversations and interviews. In this sense, only the incorporation of video-taped interviews would have given the reader all of the information which the observer gained.

The field notes they were analysed by coding thirty one categories. To generate these categories, those used in the ROTT and the systematic observation schedule were drawn upon in order to provide the initial framework. These categories were applied to the field notes, sorted and refined with new codes developing from them. The code of ‘Inert Supervision’ (see page X) is the main example of a derived category. The ORACLE 1996 Teacher Record contained the broader code ‘Non-interaction’, this incorporated both monitoring, being away from the class and talking to either an adult or pupil from another class. The ROTT schedule included categories of relevance,

those of liaison with other adults, yet had no provision for teachers to record periods when they were supervising the class in this way from their desk. Not only was this a subtlety of lessons which was not generated in the study by Campbell and Neill, but it would have been unlikely that teachers would have recorded either this level of detail on the ROTT or that such periods would have been truthfully represented.

Reliability and Validity

Both validity, whether what was claimed to be measured was measured, and reliability, whether different researchers would reach the same conclusions as well as whether the research instrument used would yield the same results each time were issues for consideration. The design of the study to some extent overcame problems of reliability and validity but the following section details the outstanding issues.

Observer Effect

How far my presence affected the data collected, was an issue which needed to be acknowledged and reflected on. The pilot study had signalled areas of possible difficulty which were largely concerned with the researcher's role in the classroom and the attitude of the teachers to the researcher.

Beyond the initial reaction to my presence, all teachers considered that they had not been affected by having a researcher in the classroom. Mike felt that I had only affected the way in which he acted within the class for the first couple of days and Linda found my presence to be a help because she enjoyed having some one else in the classroom with her.

Rosemary felt that my presence had only affected her teaching initially: after she had shouted at a child she decided "That's it, she knows what I'm like . . . If you are concerned with the children and their education and there is somebody in there that notices something and they pick it up then

you shouldn't feel that you've let yourself down, because there is a lot to watch, particularly when you do a lot of groupwork because of the age range."

When asked whether I had affected the way in which Brenda acted she replied, "No, (laughs) I'm as balmy whoever's here. At one time it would have done. Perhaps when I was teaching it would have done and when I was teaching and you were in, no, I wasn't my exact self at the beginning, but because we've got a good relationship, you know . . . you become more confident as the years go by; because I'm an old lady now. You tend not to mind".

The following two accounts go further towards illustrating the fact that the staff did not alter their actions to ensure that only a favourable view of their work was gained. Firstly, following a break, Rosemary instructed the class to get on with their work whilst she went away from the school premises for some minutes before returning to the classroom. Secondly, during Religious Education lessons Rosemary would go out of the classroom to mark work. During the period of observation, it was questionable as to whether she was trusting me to keep an eye on the class during these lessons. On a day when I was not working in her classroom, I went into Rosemary's class to give her a message and found that she was again out of the room and there were no adults left in charge of the class. Whilst these were extreme examples, demonstrating the way in which Rosemary continued in my presence, with seemingly no regard for the impression she created or legal liabilities of her actions. However, over the course of the research all of the teachers exhibited a range of emotions in their teaching which reinforced the notion that they were uninhibited by my presence. Anger with one or more pupils was the most 'reassuring' emotion to be witnessed: on one occasion my feeling that keeping a low profile behind the class bookcase was the most appropriate course of action to take when Mike lost his temper with the whole class!

The pilot study had indicated that certain activities, such as working with individual pupils, particularly hearing children read, led to distraction from the task of observation. During the study itself, situations arose during the school day, such as being called to cover for the Reception class teacher, which meant that observations had to be abandoned and so notes from these sessions were

disregarded. This had the positive effect of allowing an extended period in each class and school. I was absorbed into the life and professional culture of each school, to the extent of being invited to staff nights out. The close-knit structure of each school meant that I understood the context within which each teacher worked; their relationships with each other, pupils and parents; the abilities of each child within the classes and the frame within which each lesson was set.

My effect upon the pupils also needed to be considered. Generally, as asked, the children did not approach me for help. Two children proved to be exceptions. Firstly, a child in Mike's class who was frequently upset and who, on such occasions, would only calm down and work when allowed to sit next to me and secondly, a very able child with behavioural problems who, during George's Mathematics lessons, would only work with me. My status in the classrooms was unusual in the eyes of the pupils. Whilst the same level of respect was shown as would be the case for any other adult, pupils were clearly aware that I would not reprimand them for any minor misbehaviour. Pupils showed an interest in my work and were often keen to 'fill in' missing pieces of information, for example, volunteering a detailed description of how Rosemary's class was grouped for aspects of English, or how Jean organised Geography and History into short topics which concluded in a test. In this sense, the pupils proved themselves to be a further and largely unexpected source of data about classroom routines.

Consistency of the Record of Teacher Time

Whilst the ROTT schedule provided a valuable insight into the work of the teachers throughout an entire week it was limited in three main respects. Firstly, the schedule made allowance for only seventeen hours each day and therefore may have 'missed' some work entries. This was perhaps most clearly pointed out when Susan asked why there was no space to show work completed between midnight and seven in the morning. The teachers who completed the ROTT did not comment upon this and none recorded working either extremely early or late, suggesting that no detail was lost. Rosemary was the exception, her entries suggested that she may have completed some form of preparation tasks before 7 a.m. on some mornings.

Secondly, the division of the working day into three minute sections, a compromise between accuracy and that which the teachers could reasonably be expected to complete, meant that activities of shorter duration were over-represented to a greater extent than those which extended over a long period. However, the strengths of this instrument include capturing events that a broader grained record, such as the five or ten minute minimum recommended activity length of the School Teachers' Review Body survey (1996, Annex B, para. 10), would lose.

Thirdly, individual codes were open for misinterpretation. Those used by the teachers to code their breaktimes were of particular note. Firstly, analysis of the ROTT schedules confirmed one of the concerns voiced by Campbell and Neill (1994, p.109) in that some of the teachers made break time entries under other, more explanatory codes. Campbell and Neill (1994, p.109) had noted that the teachers in their study had differed in their means of recording breaks, with some using alternative 'work' codes in preference to that of AF, although no detail of the range of interpretations in coding the data was reported. The variations in coding used by the teachers in this study could be taken to indicate of the range of interpretations made by the much larger sample of teachers studied by Campbell and Neill (1994). By implication therefore, there were problems with the ROTT concerning its reliability and validity. Rosemary used both the AB/AF codes and other codes during both break and lunch times but additionally, her ROTT was distinctive as it showed break times to not always occur when time-tabled and to sometimes last for a longer period than formally specified. Linda used only the AB and AF codes during formal breaks, thus allowing no scope for detailed interpretation of her work during these periods. Jean used the two codes for most of the scheduled breaks, but detailed thirty minute blocks at lunch time as IS: staff meetings or liaison with other staff, perhaps indicating that these were indeed formally arranged staff meetings which she interpreted differently to any other work.

Reliability and Validity of the Field Notes

What have been described so far are the different interpretations of the ROTT which individual teachers seem to have made which lead to difficulties in analysis. The way in which the field notes from the participant observation were coded also raised issues. 'Relaxation' was the code

used to indicate that teachers were having a break from work and its use was not restricted to time-tabled break times: teachers were observed to take breaks, be they very short in duration, from their work both before and after school, during non-contact time and during lessons. This coding was used to capture periods when teachers were not concerned with school work, however did include periods, for example, when they were in the staff room waiting to use the photocopier, but drinking a cup of tea whilst doing so. On such occasions, it is arguable whether the fact of having to wait to use the photocopier was an element of their work which took priority over the break of having a drink, as, by its very nature, the photocopying was the main interest and the cup of tea merely an opportunistic activity. Similarly, relaxation would have been coded if the teacher was talking to a visitor about non-school related matters at the end of a break instead of returning to the class on time; here the topic of conversation was important as had it related to, for example, a child in the school, it the period would have been coded as a form of liaison. Again, the continuation of a conversation, albeit informal and not concerning the school, may be considered to be part of a teacher's work as severing the conversation could be damaging to the relationship of the visitor with the school and so bad for public relations. In this sense the time coded as 'Relaxation' could be considered to be generous as some of these periods could be taken to be work related.

Problems with Data Interpretation: defining 'Relaxation at Work'

It has been argued that the work of teachers in small schools involves many more tasks than that of teachers in larger schools where the larger number of staff can share responsibilities. Understanding of the way in which teachers in small schools spend their break times during the school day would seem to be a useful means of measuring the impact which being part of a small staff has upon working practise.

Regardless of individual differences in the ways in which teachers completed the ROTT, weaknesses in the schedule itself are exaggerated in the unproblematic coding of teacher activities. Work at break times could be coded either specifically using the detailed codes or the 'AF - break not free of work' coding: this choice for those completing the schedule led to some confusion and therefore difficulty in interpretation of the data. Coding of breaks free of work proved less

problematic, although comparison with the observational data would suggest that teachers tended to underestimate the time which they spent relaxing. The notion of using this code outside school hours, adopted by one teacher, was a further sign of that the instructions for completion of the schedule were open to interpretation. What is interesting to note is that no teacher in this study entered a break code during sessions of work completed at home, either at weekends or, for part-time staff, on days off, nor at school during Parents' Evenings, despite the fact that work at home was often recorded to last for two and a half hours and one Parents' Evening was recorded to continue from just after 6.15 p.m. until shortly before midnight without interruption or break.

Many situations arise in which a teacher is not actively working, yet is not taking a break, for example, while waiting for the photocopier to complete a run, a teacher may take the opportunity to have a cup of tea in the staff room. In this study, observations of such activities were coded as 'relaxation' on the basis that the teacher was not actively involved in the work in hand. However, it is acknowledged that such activities inhabit a 'grey area' between both work and rest. The necessity of having to wait for the photocopier to complete copying is unavoidable and therefore work-related, yet it is highly questionable that the fact that the teacher has taken the opportunity to have a cup of tea diminishes its relationship to work. The proportion of time ascribed to breaks free of work derived from the observations in this study, can be said to be generous.

3. SUMMARY

Despite the above problems with the methodology, the study has generated the following findings:

1. Working in a small school did not greatly influence the ways in which the teachers organised their work. The proportion of a full-time contract which each teacher held, coupled with their personality and individual circumstances, was the most influential factor in determining the hours worked and ways of organising their time.
2. The notion that teachers in small schools can be distinguished by their willingness to work 'beyond the bond' was unfounded in these schools.
3. In terms of classroom organisation and teaching styles, there was as much variation within each teacher's style as there was between each teacher.
4. The headteachers had very different ways of working in their non-teaching time. These differences were more attributable to their personal philosophies and the status of their schools than the size of their schools.
5. There was very little to suggest that the teachers in the study had undergone any distinctive degree of intensification of their work.

Further research is needed regarding the following issues:

1. This study is based upon only a small number of teachers; a broader base of knowledge needs to be developed using larger samples of teachers working in small schools.
2. There remains the policy issue of the value for money which small schools give, given their higher costs per pupil. Part-time staff would appear to be of most note here.
3. The high performance of pupils, given the similarities in the curriculum and classroom organisation of classes in small schools, needs fuller explanation.
4. According to recent evidence from OFSTED, very small schools, those with fewer than 50 pupils on roll, appear to perform differently from 'larger' small schools with between 50 and 99 pupils on roll. The reasons for this threshold are not clear and are worth further investigation.

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Appendix A

Data received from OFSTED, 1994 - 1996

Table 1: Small Schools' Data, composite grades from inspections 1994 / 1995 to April 1996

(Data derived from OFSTED Research and Analysis, May 1997)

No. on Roll	No. of Schools	Socio-economic	Standards	Efficiency	Ethos	Quality of Education	Overall
unspecified	60	2.92 (60)	3.42 (53)	3.30 (54)	2.58 (54)	3.42 (53)	3.16 (52)
1 - 10	0	-	-	-	-	-	-
11 - 20	5	3.20 (5)	3.03 (5)	2.40 (5)	2.04 (5)	2.39 (5)	2.39 (5)
21 - 30	18	3.29 (17)	3.17 (16)	3.16 (16)	2.16 (16)	3.10 (16)	2.73 (16)
31 - 40	52	3.37 (51)	3.44 (48)	3.24 (49)	2.45 (49)	3.34 (49)	3.13 (48)
41 - 50	56	3.47 (53)	3.33 (49)	3.23 (51)	2.51 (51)	3.36 (50)	3.13 (48)
51 - 60	71	3.34 (66)	3.30 (64)	3.33 (66)	2.46 (67)	3.19 (62)	2.97 (60)
61 - 70	85	3.21 (79)	3.19 (78)	3.06 (79)	2.49 (80)	3.25 (76)	2.94 (75)
71 - 80	84	3.19 (83)	3.25 (82)	3.25 (82)	2.50 (82)	3.33 (80)	3.05 (80)
81 - 90	82	3.04 (79)	3.22 (73)	3.14 (76)	2.42 (76)	3.34 (75)	2.99 (73)
91 - 100	86	3.62 (81)	3.34 (84)	3.40 (84)	2.48 (84)	3.35 (82)	3.09 (82)

Table 2: Small Schools' Data, composite grades from inspections 1995 / 1996

(Data derived from OFSTED Research and Analysis, May 1997)

No. on Roll	No. of Schools	Socio-economic	Standards	Efficiency	Ethos	Quality of Education	Overall
1 - 10	4	4.00 (4)	3.35 (4)	3.13 (4)	2.54 (4)	3.18 (4)	3.02 (4)
11 - 20	3	4.00 (3)	4.11 (3)	3.83 (3)	3.75 (3)	4.02 (3)	3.96 (3)
21 - 30	10	4.11 (9)	3.75 (10)	3.40 (10)	2.91 (10)	3.83 (10)	3.50 (10)
31 - 40	13	3.46 (13)	3.67 (13)	3.33 (12)	2.78 (13)	3.14 (13)	3.38 (13)
41 - 50	16	3.73 (15)	3.53 (15)	3.17 (15)	2.54 (15)	3.42 (15)	3.16 (15)
51 - 60	15	3.40 (15)	3.02 (15)	3.15 (15)	2.63 (15)	3.22 (15)	3.04 (15)
61 - 70	23	3.48 (23)	3.54 (23)	3.20 (23)	2.53 (23)	3.52 (23)	3.20 (23)
71 - 80	31	3.43 (30)	3.60 (30)	3.22 (29)	3.03 (30)	3.70 (30)	3.44 (30)
81 - 90	14	4.07 (14)	3.74 (14)	3.05 (14)	2.82 (14)	3.59 (14)	3.38 (14)
91 - 100	21	3.63 (19)	3.46 (19)	3.38 (19)	2.80 (20)	3.46 (20)	3.22 (19)

Table 1 above presents the mean totals for the schools with fewer than 101 pupils on roll, inspected throughout the 1994 / 1995 year and until April 1996, using data sent to me from OFSTED. For the purposes of my analysis, schools were categorised by number of pupils on roll, in increments of ten pupils. A total of 599 schools with fewer than 101 on roll were listed as having been inspected. The data received from OFSTED were only partial as can be seen from the totals in the analysis: data was complete in only 486 cases. Sixty two schools were listed where pupil numbers were not specified, and in the case of other schools, grades were missing from one or more of the categories. The sample contained first, junior and primary schools. Due to the relatively small sample size, differences in school organisation were not separated out. However, seventy seven per cent of the sample comprised schools with a pupil intake spanning at least six years. Each school was further graded according to the socio-economic status of the catchment area. In Tables 1 and 2, these grades have been aggregated and the mean calculated from the data received.

Table 2 summarises a similar analysis of the 150 schools with fewer than 101 pupils on roll which were inspected under the new framework operated during the remainder of 1996. Again, I used data provided by OFSTED for the analysis. However, the data sent were incomplete and figures in brackets indicate the number of schools used to determine the mean grades awarded. 150 schools were listed as having been inspected during this period but, as an example of the problems in the data released, two schools were listed as having no pupils on roll despite being given inspection grades!

The data presented in Tables 1 and 2 are problematic, not least because no comparative data for larger schools were available and the sample itself was relatively small. It does appear to indicate that in the area of 'School Ethos' if no other, small schools were indeed being judged to perform well, with all groups being awarded a grade above '3'. The five schools listed as having fewer than twenty pupils in Table 1 were judged to perform particularly well, gaining an 'above average' grade in the composite 'Quality of Education'. Four of these schools covered the whole primary age range.

Appendix B

Systematic Observation Schedule

Center University Transfer Project		Phase: 1 2 3			Obs No. <input type="checkbox"/>					
Time	Schl.	Tchr	cls	reg/lr	other	Subject	E ₁	M ₂	S ₃	
CONVERSATION CATEGORIES		Group	tutor ₁	tutor	gps	mix ₂	hisset ₃	medset ₄	lowset ₅	other ₆
QUESTIONS (child answers by)		i/a I/w Au Cu								
TASK										
recalling facts										
offering ideas, solns. (closed)										
offering ideas, solns. (open)										
TASK SUPERVISION										
referring to task supervision										
ROUTINE		8								
referring to routine matter										
STATEMENTS										
TASK										
of fact										
of ideas, problems										
TASK SUPERVISION		11								
telling child what to do										
praise / crit of wrk/effrt (+/- if strong)										
informational feedback re wrk/effrt										
ROUTINE										
providing information, directions		16								
praise/ crit of rtn/ behvr (+/- if strong)										
informational feedback re routn/behvr										
of small talk										
STUDENT INTERACTION										
gesturing (+non-verbal/material i/actn)										
showing/demonstrating/participating		21								
marking										
waiting										
reading or telling a story										
LISTENING/WATCHING										
listening to report/explntn										
listening to child read		26								
watching child/chn work										
ADULT INTERACTION										
adult interaction										
visiting pupil										
housekeeping (or not i/act'g)										
general monitoring										
out of room		31								
not observed										
not listed										
HELP! (+ note)										
TEACHER'S AUDIENCE										
boy individual										
girl individual										
boy for group		36								
girl for group										
boy for class										
girl for class										
sustained interaction										
group										
class										
pair		41								
CURRICULUM										
1 Eng 2 Math 3 Sci 4 Hist 5 Geog 6 RE 7 Art										
8 Music 9 PE 10 IT 11 Tech 12 PSE 13 X-curr										
14 rand ch 15 routn 16 other										

Appendix C

Teacher Interview Schedule

TEACHER INTERVIEW SCHEDULE

TEACHER: _____

DATE: _____

Class Teacher Interview Schedule

Introduction

As you know, I am researching the work of teachers in small schools. I am particularly interested in the following areas:

the way in which you approach teaching a mixed age class;

what working in a small school means to you and

how it differs, if at all, from any of the other schools which you have worked in

For this interview, may I use a tape recorder? I will also make brief notes as a precaution against the tape failing.

The interview will, of course, be written up in a way which ensures your anonymity, as with all data gathered during this study.

If you wish, I will let you have a transcript of the interview for you to amend if you feel it necessary.

During the interview, I hope that you will give me your own views and attitudes about working in a small school and not feel under any pressure to give what you might see to be the 'right' answers.

Section 1: Background

Before we begin the interview proper, could I ask you for a few straightforward details about your work and career?

Teaching Experience:

Status : *Full-time* *Part time: 0.* *days*

Areas of responsibility: 1.

2.

3.

Teaching Qualifications:

Inset training e.g. 20-day courses:

Length of time at this school:

Work in other schools: *size, age range, responsibilities, location*

Broadly speaking, how much time do you spend on schoolwork outside school hours each week?

What do you mainly spend this time doing?

Section 2: Classroom Organisation

I have been in your classroom and watched you teaching and, as you know, I am trying to find out how teachers in small schools manage both the mixed age groups in their classes and the demands of the curriculum.

Thinking about classroom organisation: how you organise the class and the curriculum, can you tell me a little about how you see yourself as a teacher?

How do you use whole class, group and individual teaching? Why do you do it that way?

How do you differentiate? e.g. by age, ability

Do you feel that you teach or organise the class differently according to the subject?

Section 3: The National Curriculum

On the whole, do you think that the National Curriculum has been an improvement on what happened (here) previously?

Do you have any problems in covering everything effectively?

Are there any areas of the curriculum which you feel that you lack the confidence to teach properly?

If so, why?

Section 4: Teaching in the Small School

Can you tell me about the parts of your job which you see as being particular to a small school?

part-time teaching;

workload;

atmosphere;

role as curriculum co-ordinator;

planning and assessment;

stress

Headteacher

How do you attempt to offer leadership in the school?

Section 4 (continued)

Which of the aspects of working in a small school do you find particularly satisfying?

Are there any aspects which are at all unrewarding?

What do you feel about having mixed age groups in you class?

Do you prefer the fact that children stay with you for more than a year?

What effect did the inspection have upon your teaching that week?

planning, teaching style, records

Section 5: The Researcher

Do you think that my presence in your classroom altered the way in which you acted whilst I was observing? Yes / No

If yes, then can you tell me a little about this?

Finally, is there anything about teaching in the small school which we have not yet talked about but which you think is important to mention?

Would you like to receive a copy of the interview transcript? Yes / No

Appendix D

Guidance for completing the Record of Teacher Time

Column A: time spent working on school premises and all the time spent working with children, even if it is off school premises e.g. school trips, swimming. Exclude travel to and from work

Column B: time spent on professional work and work-related activities away from school premises. Include travel to and from courses and conferences

In both columns, you should record how you spent your time, not how pupils spent theirs.

Each column is divided into 3-minute time intervals. Draw a line across the appropriate column at the start and finish times and write the appropriate code in the space.

If you were engaged in two activities at the same time (e.g. teaching maths and mounting a display) then enter both codes (TM, AD) in the space.

If for periods you are not engaged in any professional activity then leave that space blank.

There is one sheet for each day. Please fill in the sheets over 7 consecutive days

Codes for the Record of Teacher Time

TEACHING

Include codes where you are in direct contact with children, helping them to learn.

- TM Teaching Mathematics and Number
- TE Teaching English, Language, Talking, Listening
- TS Teaching Science
- TH Teaching History
- TG Teaching Geography
- TD Teaching Design, Technology
- TP Teaching PE, Movement
- TC Teaching Art, Craft
- TU Teaching Music
- TR Teaching RE

- TO Teaching any other subject not included in the above codes
- TT Administering SATs
- TA Assessment and/or recording for the National Curriculum carried out during teaching
(excluding SATs)

Do not try to go into great detail. If there is any Mathematics going on in a given teaching session then simply enter TM. Some sessions could have several codes entered.

PREPARATION/MARKING

Include activities in which you prepare or mark children's work but are not in contact with them.

- PR Preparation and planning for children's learning - writing lesson plans, forecasts, schemes of work, organising the classroom and resources in it, briefing classroom assistants, parent helpers, etc.
- PM Marking children's work, writing comments on it, recording results outside teaching time
- PO Organising, collecting resources, organising visits, etc.

IN-SERVICE TRAINING

Include formal and informal activities intended to help in your professional development, such as training days, all courses (including those leading to a formal qualification), conferences and workshops, etc..

- IN Organised courses, conferences, etc., but not non-pupil days
- IT Travel to organised courses, conferences, etc.
- ID Non-pupil days
- IS Staff meetings, informal consultations with colleagues, advisers, advisory teachers
- IR Reading of professional magazines, journals, National Curriculum documentation and other sources of information

ADMINISTRATION

Include activities concerned with the routines of school work.

- AP Discussion, consultation with parents
- AD Mounting displays
- AS Supervising children before the school day begins, before break/lunch, end of school day etc.
- AL Liaison meetings, activities with teachers in other stages, schools, etc.

AW Attending, participating in assembly, act of worship

AB Lunch, coffee, tea breaks - free of work

AF Lunch, coffee, tea breaks - not free of work

/// Registration and collecting dinner money, and/or moving children from one location to another (from class to hall, playground to class, school to swimming baths), tidying up, etc.

(The code for this is simply to fill diagonal lines since these are sometimes very short time spaces)

AN Non-contact time which is free of work; otherwise enter appropriate code

CATEGORIES SPECIFIC TO THE HEADTEACHER

AM Management and Policy-Making, including meetings with Governors

AA Routine, Administrative and Clerical work, including Inspection work

AStf Personnel management; staff counselling and pastoral care

AN Nursery Links (specific to Mappleborough Green)

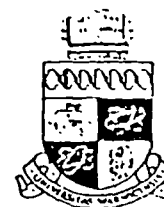
ACR Community Relations: Police liaison, summer fete, etc.

OTHER ACTIVITIES

OG Attendance at meetings of governing bodies

OS Work with sports teams, drama productions, orchestras, clubs, all educational visits, etc.

OA Activities which you cannot easily allocate to one of the other codes, e.g. filling in this record, dealing with lengthy interruptions



Please enter below the date to which this sheet refers

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Appendix E

The Duties of the Headteacher: a summary of previous research

	Mortimore et al (1988)	Blease and Lever (1992)	Webb and Vulliamy (1996)
Management and Policy-making	the curriculum; influencing teaching strategies; decision-making		curriculum leadership
Administrative and Clerical		dealing with administrative matters/duties; engaging in miscellaneous, mundane matters	local management of schools and administration;
Personnel Management	involvement with staff; other contacts with staff; staff appraisal and development; contacts with parents and outside agencies	dealing directly with teaching staff; dealing directly with non-teaching staff dealing with parents; dealing with officers of the Authority; dealing with other visitors	relationships with governors; supporting staff; monitoring working with parents and the community; the headteacher as social worker;
Duties covered by the Record of Teacher Time (Campbell and Neill, 1994)	teaching; other contact with children: pastoral (not teaching)	having time to themselves	teaching commitments

Appendix F

Research Outline

During my research I wish to complete the following:

- analysis of school documents (curriculum policies; long-term planning documents, school development plan) - gathered in advance
- analysis of medium term teaching plans (termly project plans) - gathered in advance
- analysis of short term planning by class teacher - gathered during the period of observation
- 20 days observation in each classroom (not Wednesdays due to teaching commitment) with the researcher working as a classroom assistant whilst making observations. The focus of observations will be the ways in which the teacher organises the class, curriculum content, means of differentiating for age and ability
- semi-structured interview with class teacher (45 minutes - 1 hour) to be organised as best fits the teacher's own routine.

In the week following the 20 days:

- the teacher to complete a time diary for the whole week. This will create a picture of their workload both in and out of school hours. For those teaching heads, the schedule will detail how the 'double load' is managed
- the observer to 'sit in' on the most 'typical' mathematics and English lesson that week, completing a structured observation schedule in order to validate field notes
- follow-up interview with teacher (45 minutes - 1 hour) using a preliminary analysis of the field notes as the basis for discussion. The purpose of this will be to assess the degree to which the analysis fits with the teachers' perceptions of their teaching style and means of classroom organisation

For the week of end of Key Stage tests:

- researcher to spend 1 day in class as classroom assistant, observing how the testing of Y.6 is managed in terms of staffing - a brief visit just to gain an insight into this

I would like to assure you that no material will be used without permission and that the school, its pupils and all staff are guaranteed complete anonymity

Appendix G

Coding of Field Notes made during Participant Observation

Field notes were coded to include four types of information. These were, for each entry, firstly the status of the teacher's time: that is, whether the teacher was working outside the period when they were officially required to be in school, the period outside school hours yet when the teacher was legally responsible for the class, the period when the teacher was in direct contact with the class, periods of non-contact time and breaktimes during the school day.

CODE	DESCRIPTION	CODE FOR ANALYSIS
OUT-S	Observations made before school and before the period when the teacher becomes legally responsible for the class. In both schools, these were observations made between 8.30 and 8.45 a.m. and between 3.30 and 3.45 (Pear Tree) and 3.35 and 3.50 (Haybarn).	5
PRE-S	Observations made within the period of legal responsibility but before and after school hours officially begin and end. These were observations made in both cases between 8.45 and 9.00 a.m. and at Pear Tree School between 3.15 and 3.30 and at Haybarn School between 3.20 and 3.35	4
NON-C	Non-contact time within the school day.	3
BREAK	Timetabled breaks during the school day	2
CONT	Contact time with the class	1

The second coding concerned the teacher's behaviour or the type of activity with which they were involved. The codes were as follows:

TEACHER ACTIVITY	CODE FOR ANALYSIS
Register marking the attendance or other registers, collecting money, reply slips or homework	1
Transition time waiting for the class to get changed for P.E., moving between lessons, travelling; all activities which involve or imply movement between lessons	2
Whole Class Instruction addressing the whole class with instructions specific to the lesson: what to do, how to complete tasks	3
Whole Class Teaching active teaching the whole class, that is, imparting information to them, directly	4
Whole Class Story reading fiction aloud to the whole class, not reading worksheets	5
Whole Class Praise giving positive (+) or negative () feedback on the work or behaviour of the class, addressing them together OR praising or rewarding one or more children in front of the remainder of the class	6
Whole Class Test Supervising the class when they are completing a test	7
Class Enquiry interacting with the whole class	8
One way Class Enquiry talking to the class in a way which would appear conversational, that is not imparting new ideas to them, but not questioning them or asking for their ideas or opinions; recapping upon previous work	9
Group Instruction giving directions to a group within the class relating to a specific lesson or task	10
Group Teaching actively teaching a group within the class	11
Group Monitoring supervising a group within the class	12
Individual Monitoring - Single Child working with a single child within the class	13

Individual Monitoring - Reader hearing a child read whilst the rest of the class works	14
Individual Monitoring - Special Needs working with a child who has specific difficulties	15
Individual Monitoring - Mobile Movement around the class monitoring work and pausing only to give immediate and brief feedback or instruction: in the main, a control mechanism	16
Routine Periods of routine activity largely concerning the management of resources or time within the lesson, such as dismissing them, giving out and collecting in books or resources	17
Inert Supervision General monitoring of the class, usually from the teacher's desk, with no specific contact with any of the class	18
Settling Time Periods when the teacher is waiting for the class to settle before continuing with the lesson or other activity	19
Educational Assistant Liaison discussion with Educational Assistants and parent helpers concerning lessons	20
Co-ordinator Role work concerned with the teacher's posts of responsibility	21
Staff Liaison liaison with other staff or educational officials such as the school nurse or educational psychologist	22
Liaison with Parents meetings with parents, and indirect contact through, for example, Parents' Evening reply slips	23
Liaison with Others meetings with other people related to the school, such as salesmen, police, vicar or governors	24
Preparation Any aspect of preparation or marking, except that marking which is done as an ongoing process during the course of a lesson	25
Staff Meeting Formally organised staff meetings	26

Relaxation Breaks from work during the school day	27
Duty Timetabled breaks during which the teacher is required to supervise children	28
Supervising children Supervising children before and after school, during wet playtimes, in detentions or as part of an out of school club. Also periods when for example the teacher is in the hall during a rehearsal for a concert, purely as a presence to maintain order	29
Other Activities	30
Act of Worship Leading or attending the daily Act of Worship	31

Thirdly, the duration of each activity in minutes was noted and finally, the areas of the curriculum as experienced by the pupils was recorded. Periods coded above as either routine or evaporated were included into the lesson to which they related. This was relevant when resources were collected or handed out in the middle of a session, for example if a Spelling test was followed by a Mathematics lesson, the code for English was entered until all spelling books were handed in. For lessons where more than one curriculum area was being covered at any one time, up to three curriculum codes were entered. Multiple curriculum areas were recorded if either groups of children were working on different subjects or if the task related to more than one curriculum area for example building and investigating bridge structures was coded as both Science and Technology. The codes were as follows:

1. Registration

At the start of a session where the children were not given any work to complete whilst the teacher dealt with the routine matters of settling the class, collecting money and marking the register

2. Routine

When the class are completing routine tasks not relating to any subject, for example, tidying their desks or folders, sorting out food for the Harvest Festival

3. Assembly

Moving to or from or attending assembly or church services

4. English and Language;

5. Mathematics
6. Science
7. Geography
8. History
9. Physical Education
10. Art, Design and Technology
11. Music
12. Information Technology
13. Religious Education
14. Breaktimes and Lunchtime
15. Free Choice or Cross-Curricular

When the nature or number of activities are such that they are too many to easily code

16. Personal, Social and Health Education
17. Other

Appendix H

Methods of Data Analysis

Analysis of Tables A1, A2, A3

It would have been possible to establish a mean by dividing the totals for all ROTTs by four. However, this would have resulted in, amongst other things, an average week of three and a half days of teaching, a 0.7 contract. Thus, in this basic form, this would have been unrepresentative of any of the teachers. The straightforward mean of all four ROTTs was therefore omitted from the analysis and instead ROTT data have been considered in the following two ways.

Firstly, the working week was been calculated, separating teachers with a full-time teaching load and those with only a part-time load. Table A1 details the mean of the entries made by Mike and Rosemary alone, who taught for a full five days. The data for Linda and Jean, teachers completing only part of a week's teaching, are summarised separately in Table A2.

The second means of considering the four ROTT schedules was to take them to represent the work which included and surrounded fourteen days of teaching and to reduce this to an amount which equated to one full time equivalent teacher, summarised in Table A3. This was done by multiplying the total time entered under every code by 5/14. This second way of 'averaging' these data is also not an entirely accurate way of establishing the full working week of these teachers, as some of the entries will almost certainly have been concerned with work unconnected with that week's teaching, for example, long term planning. This method does however have the advantage of relating the hours worked over the equivalent of a full week of teaching rather than to each teacher.

Analysis of Tables A9, M8, J7, L8 and R7

The percentages were arrived at in the following ways:

For the ROTT data - the total time entered for each singly entered subject (representing the teacher involved in teaching only that subject) and for multiple subjects entered together in one time space

on the recording sheet (giving some indication of mixed subject teaching or topic work), were calculated. A percentage was then arrived at by dividing this figure by the total time in absolute terms spent teaching over the week of the ROTT.

For the observational data - the time over which the whole class was observed to be engaged in each subject (representing single subject teaching) and in multiple curriculum areas (mixed subject or topic work) was arrived at and then divided by the total time recorded in observations.

Whilst the figures arrived at were not entirely equivalent, the first representing the curriculum delivered by the teacher and the second the curriculum engaged in by the pupils, some degree of agreement was expected and found to exist. Differences most obviously appeared when the balance of days observed did not match the balance of days recorded.