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The development of writing in four to seven year-old children: a longitudinal study

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The development of writing in four to seven year-old children: a longitudinal study

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ABSTRACT

This longitudinal study investigates the factors at home and school that influence children's attainment and progress in writing at Key Stage 1. Sixty children between the ages of four and seven years in four Reading primary schools were tracked and data was collected in the term before they started school, at school entry, on a termly basis once in school and at the end of Key Stage 1. Semi-structured interviews, questionnaires, observation schedules, checklists and standardised assessments were used. Associations between measures and continuity over time were assessed using multiple regression analysis.

Pre-school independent variables that were found to be significantly associated with writing proficiency at school entry included mother's educational level, family size, parental assessment of writing and a measure of home writing.

Child characteristics, skills and competencies were measured at school entry and those found to be significantly associated with writing at outcome included season of birth, WPPSI-R vocabulary score, pre-reading skills and proficiency in writing their own name. The only pre-school variable that maintained its significant relationship to writing at outcome was home writing. Teacher assessments of pupil attitudes to writing were consistently found to be significantly associated with writing at outcome. Data from the termly writing samples indicated that only the handwriting assessment predicted general writing ability at seven years of age.

Eight pupils were observed writing at two points in time and the records are discussed in terms of processes and products. Issues such as quality and quantity of writing generated are considered in relation to the development of component skills (e.g. handwriting, spelling, vocabulary), within the context of the curriculum and role of the teacher.

The results confirm the complexity of learning to write for children at Key Stage 1 and developmental considerations are discussed in relation to policy and practice issues.

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CHAPTER 1

REVIEW OF THE RESEARCH INTO WRITING

DEVELOPMENT

1.1 Introduction

> "..........sit down to write
>
> Blot out, correct, insert, refine,
>
> Enlarge, diminish, interline".
>
> (Jonathan Swift, 1667-1745)

Learning to write is a complex process. It reflects a range of interrelated influences –

cognitive, social, cultural, psychological, linguistic and technological.

Children who start school with the ability to communicate well orally have to learn a new

set of conventions and skills in order to be able to communicate in writing. These extend

from learning to hold a pencil, to forming letters, spelling words, punctuating and

organising their thoughts as they write. Children must learn to think in the abstract and

communicate with a remote audience with whom they do not directly interact or receive

feedback. They must learn to plan what they want to say and revise what they have written

before they become skilled and competent writers.

Compared to the abundant literature available on the acquisition and development of oral

language and also on reading, the literature on the development of writing in young

children is sparse (Cameron, Hunt and Linton, 1996). Furthermore, teachers are provided

with little advice on how best to assess the complex interaction of processes that underpin

young children's writing and there is a paucity of properly evaluated information about the

most appropriate forms of curriculum delivery.

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This study sought to investigate the writing of children from before the time they started school until they reached the end of their time at Key Stage 1 (KS1) when they were seven years of age. The main aims of the research were to investigate the relationship between home variables and writing development in pre-school children, to measure writing and related competencies at school entry, to conduct an analysis of areas of continuity and discontinuity between variables at home and at school, and to consider influences on subsequent writing development. The rationale for the study was to extend knowledge about writing development in young children from a developmental perspective and investigate cognitive and contextual factors, utilising a longitudinal design. The links between previous research and the research questions that guided the design of this study will be highlighted throughout this chapter.

In the ensuing section, global theories of cognitive development are considered in relation to their influence on conceptualisations about writing development. Then, theories that relate more specifically to writing development are discussed, followed by a review of the literature addressing cultural and other environmental factors, both at home and at school. Finally, aspects of learning to write are considered from cognitive, developmental, affective and pedagogic positions.

1.2 Theories of Written Language

This section will outline the main, influential theories that have informed research and understandings about how children think and learn, with particular reference to writing.

1.2.1 Piaget

Piaget's work has had a major influence on conceptualisations about child development. He considered cognitive development to occur largely as a consequence of the child's own

actions on the environment and described the progressive, stage-like elaboration of cognitive structures that he believed were associated with cognitive growth. He defined the term schemata to refer to the cognitive and mental structures that enable individuals to process incoming stimuli, and adapt to and organise the environment. Assimilation is the cognitive process Piaget described by which individuals try to fit incoming information into the existing schema. If the child is unable to assimilate or integrate new information into existing schemata these may need to be modified or new schema created. Piaget called this second process accommodation. He argued that schemata are constantly being created, changed and refined through the joint processes of assimilation and accommodation. These two processes need to be balanced and Piaget used the term equilibration to describe the internal mechanism that regulates the system. Equilibration is the process by which equilibrium is achieved. Disequilibrium (or "cognitive conflict") refers to an imbalance between assimilation and accommodation. In order to resolve states of disequilibrium children must adopt more sophisticated modes of thought and in this way make developmental progress.

Piaget identified distinct developmental stages that he argued were qualitatively different from each other, and occur within the continuum of development. He argued that all children pass through the same stages in the same order but rates of development vary from child to child. Advances through the stages reflect children's increasingly complex ways of thinking and constructing knowledge as they interact with and attempt to represent environment-action complexes.

Wadsworth (1989) presented evidence from Piaget's writings detailing the influence of affect on cognitive development. Piaget considered that cognitive and affective factors constantly interact in learning and that affect influences the rate of progress and can speed up or slow down development. He was of the view that affect develops in a similar way to cognition, that the two parallel each other and are inextricably intertwined. Hence, the

child who likes writing is more likely to make rapid progress than the one who does not.

According to Piagetian theory, children construct knowledge from their actions on the environment and cognitive development is dependent on an active involvement in learning. Piaget argued that children develop new ways of constructing knowledge and interacting with their world as they grow older and accurate knowledge is not acquired from external representations (such as through text or speech). Direct instruction is not considered necessary for cognitive structures to develop and the role of the teacher is seen in an enabling capacity rather than an instructional one. This perspective has had considerable influence on models of curriculum delivery in previous decades and underpinned practice that avoided direct teaching of writing skills, such as spelling and handwriting. It is argued that although the environment provides opportunities for cognitive structures to develop and be tested, in general its role is secondary to spontaneous, child-driven developmental processes. Hence, from a Piagetian point of view, children will learn to write through the experience of doing it, and will not benefit from being taught component skills. McNaughton (1995) disagrees with this aspect of Piagetian theory, arguing that it does not satisfactorily explain the influence of the context in which learning occurs and in particular the impact of social and cultural influences.

Piaget discussed the egocentrism of young children and argued that this causes a barrier to communication in children below the age of about seven and a half, as they are not able to fully understand the intended meanings of others, and assume that those listening have the knowledge and understanding that they do. This also has implications for children's writing, as Piagetians would argue that egocentric children are not able to look at their writing objectively, do not see the need for making revisions and lack a sense of audience. Researchers who have followed a Piagetian tradition include Ferreiro and Teberosky (1982) and Saracho (1990) and their contributions to understanding writing development will be discussed in more detail in Section 1.3.

1.2.2 Vygotsky

Vygotsky (1986) argued that learning is socially mediated. Of particular importance is the support provided by adults as they guide children towards more sophisticated levels of knowledge and understanding, as these interactions extend development. Vygotsky introduced the concept of the 'zone of proximal development' which he defined as the

"... distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined by problem solving under adult guidance or in collaboration with more capable peers...(The concept) defines those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow, but are currently in an embryonic state."

(Vygotsky, 1978, p. 86).

Hence, the more competent individual guides and extends the novice's learning by the provision of temporary and adjustable support, using interactive dialogue and models.

From this perspective the child's development in writing is critically tied into the social experiences that surround it, and the role and influence of the environment is active and central. Vygotsky considered learning from a cultural perspective and argued that culture is transmitted from one generation to the next through formal and informal education. He believed in the importance of cultural tools for children's development, such as the literature to which they have access and the writing experiences and opportunities that are made available. Hence, the social and cultural framework is seen, within this perspective, as having a significant influence on a child's writing development. Unlike Piaget, Vygotsky did not view development as moving through a sequence of invariant stages but considered that children could acquire particular knowledge and understandings following a variety of routes. He argued that gestures, play, drawing and writing should be seen as

> "... different moments in an essentially unified process of development of written language."

<div align="right">(Vygotsky, 1978, p. 116)</div>

with children shifting from one mode of representation to another. This can be observed in the emergent writing of children who use drawing and writing interchangeably to represent their meaning.

Vygotsky considered how children learn to think and argued that this is achieved through a process of internalising external and social activities that then become part of the individual's mental structures. He observed that when a teacher or more able peer assists the child, initially the dialogue that surrounds the activity helps the child with problem solving. Gradually the child internalises this and demonstrates increasing levels of private speech. Vygotsky argued that private speech originates in early socialised language and serves to assist pupils to communicate with themselves in planning and guiding actions. He noted developmental patterns in the internalisation of private speech, stating that it decreases and becomes more abbreviated as children get older. Berk (1986) conducted a study to investigate this and found that at seven years of age pupils' levels of private speech were positively related to intelligence. Hence the more successful problem solvers exhibited higher levels of private speech when engaged in academic tasks such as writing.

Vygotsky disagreed with Piaget on the role of the teacher, which he saw as being more didactic and central to cognitive development, considering instruction to be important in guiding and extending children's understandings. He stated:

> "Instruction is one of the principal sources of the schoolchild's concepts and is also a powerful force in directing their evolution; it determines the fate of his total mental development."

<div align="right">(Vygotsky, 1986, p. 157)</div>

Wood, Bruner and Ross (1976) developed Vygotsky's notion of the zone of proximal development in a seminal paper that considered how maternal behaviour can support and extend learning in young children. They describe how adult tutors can provide temporary and adjustable support when assisting a child with a task and refer to this process as 'scaffolding'. Adjustments to materials, presentation and linguistic support all influence the nature of the scaffold, which is progressively removed. Ultimately the learner will be able to achieve the task goal independently and their performance will be self-regulated. The concept of scaffolding has been extended since the publication of Wood, Bruner and Ross's paper, and definitions vary from the support offered by the more competent individual in one-to-one teaching, to the support and structure provided in group learning situations (Beed, Hawkins and Roller, 1991).

Hobsbaum, Peters and Sylva (1996) have examined scaffolding in relation to writing performance by analysing the nature of the support provided to pupils undertaking the Reading Recovery writing task (Clay, 1979), one aspect of an individualised programme for pupils with literacy difficulties. They note that the complex nature of the writing task means that it is very much more difficult for the adult to impose tight controls and hold elements of the activity constant, in order to provide scaffolding in the traditionally understood sense. However, the interactions between teacher and child enable provision of a scaffold, through the teacher's sensitivity to the child's existing level of knowledge, linked to task demands, stimulated and extended as appropriate.

There are numerous research studies into writing that have followed a Vygotskian theoretical approach (e.g. Graves, 1983; Bos, 1991), and these have informed knowledge about writing development and classroom practices. This study sought to illuminate the roles of home and school in scaffolding writing.

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1.2.3 Bereiter and Scardamalia

The research of Bereiter and Scardamalia (1980, 1981, 1982, 1985, 1987) has focused on the development of compositional aspects of writing in children. Immature writers are characterised as engaging in 'knowledge telling' which is considered to be

> "... explainable within a 'psychology of the natural'. It makes maximum use of natural human endowment of language competence and of skills learned through ordinary social experience, but it is also limited by them."

> (Bereiter and Scardamalia, 1987, p. 5)

Hence, knowledge telling involves the straightforward recording of a train of thought with a lack of attention to planning, goal-setting or audience adaptation. Pupils who write in this way find revision extremely difficult, as they are unable to reflect on the process of text generation due to a limited awareness and understanding of their own thinking processes (metacognitive awareness).

More mature writers are able to write in a 'knowledge transforming' way, a model which incorporates aspects of 'knowledge telling'. Bereiter and Scardamalia write:

> "The other way of writing seems to require a 'psychology of the problematic' for its explanation. It involves going beyond normal linguistic endowments in order to enable the individual to accomplish alone what is normally only accomplished through social interaction – namely, the reprocessing of knowledge."

> (Bereiter and Scardamalia, 1987, p. 6)

Two complementary processes occur during knowledge transformational writing. The writer has to consider content and discourse i.e. what to say and how to say it. Goals are incorporated into the planning process and only content relevant to the goals and the topic is written down. Planning continues during writing and audience adaptation is evident.

Bereiter and Scardamalia's research indicates that knowledge transformational writing rarely occurs before adolescence, and for pupils at the lower primary school levels, knowledge telling strategies are likely to be dominant.

Bereiter and Scardamalia (1987) describe ways that teachers can facilitate writing and describe the following instructional roles. "Substantive facilitation" involves the teacher actively collaborating with the pupil, by focusing on the content of writing, providing new information as necessary, and removing some of the load associated with the executive burden of the task. Alternatively, for more skilful writers "procedural facilitation" may be more appropriate. This involves the teacher responding to the cognitive processes involved in producing a piece of writing rather than the substance of a piece of writing i.e. teaching the procedures which will assist pupils in utilising their existing knowledge. It is argued that teachers should model the thinking that occurs during composition. Targets that demonstrate increased competence should be clear to the pupil as well as the teacher. The use of prompts which do not focus on the content of writing, are positive and encouraging and do not over-emphasise the child's difficulties with physical production (handwriting, spelling etc.) are recommended (e.g. simple prompts to say more, think of an example or counterargument or use a specific connecting word). This form of feedback should assist pupils in developing the metacognitive strategies that will enable them to reflect on the processes involved when they write and ultimately lead to improved performance. Procedural facilitation enables pupils to focus on the content and make maximum use of their higher-level knowledge and skills because the inhibiting influence of the executive burden is reduced by the provision of an organisational framework (Bereiter and Scardamalia, 1982).

Their research indicated that pupils are assisted by simplified routines and external supports and provide evidence that the following strategies can assist writing development in children:

- Brainstorming

- Prompts (sentence openers/story webs)

- Ending sentences (to assist planning)

- Writing frames (incorporating modelling and shared writing)

- Revising (in pupil groups with adult guidance)

This study sought to review and evaluate the strategies and external supports provided in schools to assist developing writers, and to consider relationships with outcome measures.

1.2.4 Nystrand

Nystrand (1989) emphasised the social interactive aspects of writing, and paid little attention to the role of cognition. He argued that writing reflects a negotiation of meaning between the writer and the reader, stating:

"... written communication is a fiduciary act for both writers and readers in which they continuously seek to orient themselves to a projected state of convergence between them."

(Nystrand, 1989, p. 75)

He referred to the mutual frame of reference between author and reader as a shared social reality, and considered writing to be socially constructed and realised through an interaction of minds. Difficulties arise when links are not established or interaction disrupted and then the writer will not adequately convey their intended meaning. He rejected those theories that consider that writers, unlike speakers, do not interact with their audiences (e.g. Kroll, 1983). From Nystrand's perspective the writer's concept of audience is crucial, and the importance of purposeful writing for a specific audience should be central to any writing curriculum (Swayze and Wade, 1988).

1.2.5 Hayes and Flowers

The Hayes and Flower (1980) model and revised Hayes (1996) model of writing has been influential in the conceptualisation of the complex interaction of social and cognitive processes that occur during mature writing. Composing is viewed as a form of problem solving and writers are seen as striving to achieve certain goals and purposes. It is argued that writing, which can be revised and modified repeatedly unlike spoken language, can facilitate the co-ordination of cognitive activities. Hence, this is a cognitive process model as opposed to a stage model, and the processes involved are considered to be recursive i.e. are repeatedly revisited. This means that during planning the writer retrieves information from the task environment and memory. Planning takes place during writing, as does revision, and these processes are intertwined and repeatedly returned to during writing. The revised model (Hayes, 1996) does not use the term planning, the importance of which he considers to have been over- estimated in the earlier version. Planning is substituted with the notion of reflection which Hayes argues occurs throughout the writing process not just at the outset, and the term revision is replaced with text interpretation. Hayes summarises the development of the model as follows:

> " The major changes in focus in the new framework are: greater attention to the role of working memory in writing, inclusion of the visual-spatial dimension, the integration of motivation and affect with the cognitive processes, and a reorganisation of the cognitive processes which places greater emphasis on the function of text interpretation processes in writing."

(Hayes, 1996, p. 26)

The updated model views the development of writing from a dual perspective – that of the individual and the task environment (see Figure 1.1 on page 13). The role of working memory and long-term memory are considered to be of central importance. Working memory involves the simultaneous storage and processing of information (Baddeley, 1986). Logie (1999) in his development of Baddeley's ideas, argues that working memory

is a temporary store with a limited capacity that involves the operation of processes which include both verbal and visual components (the phonological loop and the visual cache). Baddeley and Lewis (1981) consider the phonological loop to be important to translate ideas into sentences, and the Vygotskian notion of inner speech has a crucial role in this process. The role of the central executive is to manipulate and co-ordinate complex information in a conscious manner, and relate this to the knowledge base in order to access past learning and experiences. Furthermore, the central executive co-ordinates and controls the competing sub-processes, selecting and facilitating the schemas that are necessary to write (Gathercole and Baddeley, 1993). Certain functions, such as handwriting, are considered to be exclusively under the control of the central executive, but the demands are minimal when handwriting is fluent and automatic (Kellogg, 1996).

Flowers and Hayes (1980) and Hayes (1996) argue that the complexity of the competing processes involved in writing can overload attentional capacity. Kellogg (1996) argues that capacity needs to be 'funnelled' on to one or two processes to reduce overload.

In the revised model there is an increased emphasis on social, motivational and affective factors, which are seen as central to an individual's drive and desire to write. Hayes demonstrated that those pupils with a positive attitude were likely to be those who were the more proficient writers and argued that negative affect can block the efficiency of the system. Furthermore, the emotional repercussions of failure can perpetuate the negative experiences associated with writing for some children and lead to reluctance and avoidance behaviour in the future.

THE TASK ENVIRONMENT

The Social Environment

The audience

Collaborators

The Physical Environment

The text so far

The composing medium

THE INDIVIDUAL

MOTIVATION/AFFECT

Goals

Predispositions

Beliefs and attitudes

Cost/Benefit Estimates

WORKING MEMORY

Phonological Memory

Visual/Spatial Sketchpad

Semantic Memory

COGNITIVE PROCESSES

Text Interpretation

Reflection

Text Production

LONG-TERM MEMORY

Task Schemas

Topic Knowledge

Audience Knowledge

Linguistic Knowledge

Genre Knowledge

Figure 1. 1   The Hayes (1996) model

Some common themes can be seen to emerge from the theories of written language development outlined. The relationship between contextual factors (the task environment) and the individual, and the forces that stimulate and drive writing development have been a central point of reflection and debate. Consideration of less direct influences, such as the importance of affect and motivation in developing writers is another theme that has emerged. Also there has been much debate around the practicalities of assisting and supporting writing development and the most effective and appropriate means of achieving this. This study sought to consider the broad range of contributory influences identified by this model and to explore these themes in relation to developing writing competencies in young children.

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1.3 Early Writing Development

There have been several studies over the last thirty years that have charted the development of young children's writing and these will be discussed in this section.

The term 'emergent literacy' is widely used to describe the knowledge and unconventional literacy behaviours acquired and demonstrated by children before they start school. Clay (1975) suggested that children gradually acquire certain graphic principles as they experiment with writing but argued that it would be inappropriate to construe these as stages or ascribe age norms. Her position is that the emergence of written conventions relates to the environmental and learning opportunities to which children are exposed, and hence certain graphic principles will appear in a different combination and order in different children.

Initially, children's written forms appear as random marks, but as they develop an understanding of the functions of the system, they begin to distinguish between drawing and the letter-like forms that emerge as representations of meaning. Clay calls this the *sign* principle. Further experimentation will lead children to produce symbols or letters repeatedly (the *recurring* principle) that are of varying approximations to conventional written forms. The *flexibility* principle refers to children's discovery of new letters through this process of experimentation with signs and symbols. Through the principle of *generation,* children produce lengthy pieces of writing, using various permutations and combinations of a limited repertoire of letters and letter-like forms. Clay also described the *inventory* principle to refer to the tendency for young children to write lists, as well as the *copying* principle and the *directional* principle.

Ferreiro and Teberosky (1982) viewed the development of children's emergent writing behaviour from a Piagetian perspective. They considered learning as an active process and argued that children absorb and assimilate information about the world, modifying and

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adapting it to fit their existing mental structures. This process reveals that some mental structures are inadequate in explaining events and children will actively modify these so that new information can be comfortably accommodated. Hence, Ferreiro and Teberosky argued from a constructivist perspective that children learn by discovering concepts for themselves, and their experiences with literacy will develop and test their cognitive structures. Ferreiro and Teberosky's research confirmed that children know a lot about literacy before they learn to write conventionally, and they argued that this knowledge develops through children formulating their own, idiosyncratic hypotheses about the writing system. These early hypotheses form a series of stages of writing development that follows the sequence listed below:

Level 1 - patterns of scribbles that usually cross the page horizontally

Level 2 - emergence of letter-like forms

Level 3 - links between graphic representations and syllables become evident

Level 4 - grapheme-phoneme correspondences emerge in writing

Level 5 – written productions demonstrate an established understanding of grapheme-
        phoneme correspondences, consistently applied.

In order to reach the fifth level children must discover the phonological relationships between speech and writing.

Ferreiro (1984) argued that this sequence of development in writing is embedded in the more general cognitive changes that occur in young children. Hence the child moves from the preoperational stage of development, where their thinking is fixed and egocentric to being able to decentre and view situations from more than one perspective in a flexible manner, allowing them to reflect on a particular aspect or the whole (operational thinking). She construed a child's approach to writing as their attempt to master a complex problem

and their growing knowledge and expertise as the development of increasingly sophisticated problem solving strategies.

Similarly, Saracho (1990) conducted a study that explored features of writing in a sample of 50 three year olds. Children were given a pencil and a sheet of blank paper and asked to write their name. The products were analysed and categorised as follows:

Level 1 - random scribbling

Level 2 - scribbling which crosses the page horiziontally

Level 3 - discrete units comprising letter-like forms

Level 4 - distinct, recognisable letters.

Level 5 - correct spelling.

Saracho interpreted her observations from a Piagetian perspective, arguing that the differentiation she identified constituted distinct stages. The first four stages focus on a progression closely linked with grapho-motor development. There is less emphasis on emerging phonological understandings in this model than in Ferreiro and Teberosky's and hence the developmental leap required to move from Level 4 to Level 5 appears very wide. In other respects, the parallels between the developmental stages identified in both models are clear.

Sulzby (1990) argued against viewing writing development as a hierarchical series of stages and instead proposed that it should be construed as the acquisition of a repertoire of understandings, which children reorganise as they become more mature. Hence, she purported that although writing development follows a "general progressive track" (Sulzby, 1990, p. 85) around this there are varying developmental patterns. She argued from a socio-cultural and a psycholinguistic base and suggested that children's writing behaviours reflect the context in which they have arisen. Hence, some children have been

encouraged to scribble and pretend write telephone messages whilst others have experienced direct teaching of letter-sound correspondences (phonics) and copying. Individual developmental profiles reflect this and the culture in which writing is embedded.

Garton and Pratt (1989) also avoided defining writing development in terms of stages, by describing a series of more broadly based phases. Their conceptualisation is functional and developmental, and rooted in the literature and research already discussed.

Initially, they describe the lack of distinction between children's drawing and writing, but discuss how with practice and experience understandings about writings and its functions emerge. The appearance of letter-like forms exhibiting the most notable features of conventional script become increasingly evident and these usually appear as circles and lines in children's written representations. Garton and Pratt point out that these usually emerge through experimentation rather than direct copying. Children are most likely to experiment with the letters in their name and these are usually the first conventional forms to emerge. Children need to develop an understanding of the functions and purposes of writing, and these will vary according to experience and exposure. Early on, they may only be aware that print conveys a message, but as they develop, they learn about other functions of writing such as to label, to list, to convey a sentiment, and so on. Garton and Pratt argue that children gradually become aware of the relationship between speech and writing, an understanding acquired through the mediation of concrete materials and experiences. Once they have grasped the correspondences between groups of letters and spoken words, print directionality and the time ordered nature of speech, they will have sufficient understandings of the language system to cope with the school curriculum and further their development into conventional literacy.

Kroll (1981) provided a description of writing acquisition extending beyond these earliest understandings, and he differentiated between four distinct phases. The first phase he

referred to as *preparation* and this involves the learning of the basic mechanical skills of handwriting and spelling. This is followed by a phase where children begin to write sentences that contain many oral structures and this resembles speech written down. Kroll referred to this as *consolidation*. *Differentiation* is the phase where grammatical structures not evident in children's speech begin to appear in their writing. The final phase Kroll referred to as *integration* and it occurs when the individual can fully deploy appropriate oral or written language structures. It parallels Bereiter and Scardamalia's knowledge transformational process, where the writer reprocesses knowledge and makes appropriate linguistic decisions when writing, which vary from the choices which would be made when communicating orally. The phases are not discrete periods, but represent a progression along a developmental continuum, and it is not easy to assign chronological ages to their onset. However, Perera (1984) proposed that the consolidation stage begins at about 6 or 7 years, and the differentiation stage at about 9 or 10 years.

Other studies that propose models of writing development include those of Bauers and Nicholls (1986), Green (1987) and Kinmont (1990). Such models provide frameworks for assessing writing development and were considered in relation to the research aim to investigate the relationship between home variables and writing development in pre-school children.

1.4 The Socio-cultural Perspective

Individuals living in a society acquire the values, attitudes and behavioural patterns that are operational within that context (Goodman, 1984; Hall, 1987; Hannon, 1995). Brown, Collins and Duguid (1989) point out that such cultural practices are complex and esoteric, and not acquired through didactic means, but absorbed through exposure to social norms. The emergence of writing in young children is an example of a cultural experience

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conveyed through exposure to print and models of writing behaviour. As Schieffelin and Cochran-Smith (1984) state:

> "The point we wish to stress is that the print interests of the children in this community (or in any community) do not emerge 'naturally' at all. Rather, in this community, they emerge out of a particular cultural orientation in which literacy was assumed and which organised children's early print experiences in particular ways."

(Schieffelin and Cochran-Smith, 1984, p. 6)

Czerniewska (1992) illustrated the socio-cultural aspect of literacy by describing Scribner and Cole's study of the Vai in Liberia, a culture with three literacies, accessible for different social functions. Not all members of the society were familiar with all three forms, which included Vai, Arabic and English. Scribner and Cole assessed areas of cognitive functioning (e.g. memory, abstract reasoning) in an attempt to evaluate the role of particular forms of literacy in shaping cognition. They concluded that specific skills are enhanced and developed by the associated ideologies and practices from within that domain. Hence, a more generalised conclusion that has been drawn from this research is that within schools, the prevailing, dominant and influential literacy practices in society will shape the cognition and learning styles of pupils.

Czerniewska further illustrated the cultural specificity and relevance of a range of literacy practices by citing Heath's (1982) study of three different communities in North America, and Scollon and Scollon's (1981) study of a society in Alaska. She argued that school based literacy is culturally defined and socially constructed to fit the dominant institutional and discourse needs of that society. Although other literacies may exist, they may only be valued in settings other than school.

Hence, literacy not only varies between cultures, but within them. In Britain there is no monolithic literacy but a system of differing and distinctive cultures and sub-cultures that exhibit variable patterns of literacy use. As Lankshear (1987) stated:

"There is no single, unitary referent for 'literacy'. Literacy is not the name for a finite technology, set of skills, or any other 'thing'. We should recognise, rather, that there are many specific literacies, each comprising an identifiable set of socially constructed practices based upon print and organised around beliefs about how the skills of reading and writing may or, perhaps, should be used."

(Lankshear, 1987, p. 58)

Soter (1987) also reviewed these broader issues and proposed that in schools, the socio-cultural climate directly affects the nature of writing tasks, the content considered acceptable, writing purpose and audience choice. In addition, the cultural context influences modes of thinking, accessible knowledge and language structures in a society. She argued that these factors should be considered when studying writing development as children become imbued with the rules surrounding writing and these will vary between disciplines and between contexts.

Englert and Palincsar (1991) put forward the view the cultural context of schools and classrooms have a bearing on writing development. Hence, the belief systems of teachers and pupils about writing will dictate how the curriculum is presented and received. Also important are the interactions around writing that occur amongst pupils and between pupils and teachers, as these influence the social, affective and cognitive systems available to support and develop pupils' learning. Brown, Collins and Duguid (1989) argue that it is important that the writing tasks that pupils encounter in school are perceived by them to have a genuine purpose (or to be 'authentic'), so that they can access the cultural domain in which they are rooted. In reality, many classroom practices are remote, detached from the cultural framework and do not offer pupils the opportunity to learn about the relevant cultural norms of the subject domain.

Hence, in order to understand the process of learning to write it is necessary to take account of the cultural context, and children's texts need to be considered within the social and linguistic contexts in which they are embedded. The context is significant with respect

to the events that surround writing and the conditions and place in which it occurs. Another important contextual consideration relates to the genre (type of writing), as this will influence the purpose, content and audience. Genre may be explicitly focused on as part of the literacy curriculum, and information about a range of writing styles and language use conveyed to pupils. However, it is argued that teachers may be biased towards a particular genre (such as narrative style at primary school) and this will influence the curriculum and forms of writing that are valued in school (Kress, 1994). Baynham (1995) develops this point as follows:

> "Over time and because of the different kinds of social purposes they serve, different types of writing gather prestige and status. It is an interesting question whether the power and status of one written genre (say, expository prose) over another (say narrative) is *intrinsic*, in that there is something intrinsically more powerful in expository writing as a means of communication, or *ascribed*, in that the power of particular kinds of writing has become entrenched because of the social institutions whose interests are served."

(Baynham, 1995, p. 208-9)

In recent years there has been a growing consensus that it is the responsibility of schools to provide access to a variety of genres to prepare pupils to be able to write for a range of purposes and functions (DES, 1989b).

Dyson (1984) observed three children in their first year at school and examined the relationship between learning to write and learning to perform school writing tasks, which she conceived as distinct and separate constructs. She reported that children's attention was focused on to different aspects of the writing process depending on the task, and that variations between children were related to differing developmental levels, learning profiles and functional understandings of literacy. She rejected the view of literacy as representing a hierarchical series of skills, adopting the broader construction of it as a social activity, with associated norms and patterns of behaviour. She argued for interpreting literacy learning in school from a socio-cultural perspective on the grounds

that as individual children bring to school varied literacy experience and understandings, they will attend and be responsive to different aspects of literacy tasks and hence will learn differentially. Dyson claimed that this gives us insight into why some children are more likely to succeed in school.

1.5 Writing before school

There has been much research interest in the influence of the home environment, as there is a general consensus that the pre-school years have a significant bearing on children's attainments in school, and in later life too. Longitudinal studies have shown that children's knowledge of literacy at school entry is a strong predictor of their success or failure later (Wells, 1987; Tizard et al., 1988).

For most children, the home is where their earliest learning occurs and many researchers have attempted to identify which factors are likely to contribute to a favourable learning environment (e.g. Bradley et al., 1979; 1980; 1988; 1989). Snow et al. (1991) conducted a longitudinal study that sought to identify the factors in the home that were associated with literacy achievement. They reported that:

> "... organization in the home, participation in activities, the presence of TV rules, and the
> parent-child relationship scale showed substantial correlations with writing production,
> indicating that the children who wrote longer essays came from more organized and active
> homes, with rules about TV, and had more positive relationships with their parents."

> (Snow, Barnes, Chandler, Goodman and Hemphill, 1991, p. 92)

Children from families defined by Snow et al. as 'resilient' were more likely to be better writers, displaying more initiative, organizational skills and self-confidence than children from 'stressed' homes. The researchers argued that this is because writing is influenced by the individual's confidence in what they have to say and this affects their initiative in

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putting their thoughts into writing. Those children who lacked confidence found it more difficult to generate text. The 'resilient' families were more organised and the children from these homes were better able to plan and organise themselves and achieve an objective in a defined time frame. This had an impact on the child's school life in general, and more specifically on the children's ability to produce text of a higher standard.

Families differ significantly in the quantity and quality of their uses of print. Teale (1986) noted the differential levels of exposure to reading and writing that exists between homes and commented that this impacts upon children's opportunities to observe reading and writing, engage in literacy focused interactions with other family members and undertake independent literacy activities. Hence, some children begin their school life with a much better grounding in early literacy experiences than others.

Roderick (1990) questioned a group of nine mothers about their early experiences as writers. She noted connections between these experiences, the kinds of interactions they had with their children and the material context they provided. She also noted links between mothers' expectations for their children as writers and their own early experiences with writing.

The home is a problematic setting to study and learning experiences in the home are difficult to identify and quantify. This is because much education is incidental, and includes features that constitute:

> "... fleeting actions that take place at the margins of awareness ....the curriculum (within families) is structured differently from that in schools in terms of both time and space, and it should be understood in its own terms. At best, formal instruction accounts for only a fraction of the education that takes place in families. Informal instruction in the course of other activities - instruction that is often not recognised as such - is essential for education within families, including the learning of literacy."

> (Leichter, 1984, p. 38)

In an attempt to obtain detailed, empirical data about families as environments for literacy, Leichter conducted a series of studies that utilised qualitatiative designs to examine families in their homes over a period of some months. It is interesting to note how the scale and complexity of the task meant that the researchers found it extremely difficult to organise or draw any significant conclusions from the wealth of data they gathered about informal literacy activities. As Leichter stated:

> "The problem of locating literacy within the stream of family activities may be solved by focusing on interaction with print during such formal moments as homework sessions and reading to children. If, however, one assumes that many occasions for literacy take place in the course of other family activities, then one is presented with the broader problem of tracking and observing an exceedingly wide variety of activities that are potential settings for literacy or that provide context for understanding more formally defined literacy events."

(Leichter, 1984, p. 43-4)

Although arguing for the value of observational methods in researching the home environment, Leichter considered them difficult to implement on cost and efficiency grounds, with time constraints and difficulties of access causing particular problems.

Taylor (1983) noted that within the families she studied, children's literacy development was influenced more strongly by the indirect conveyance of attitudes, values and expectations, than by direct teaching. Literacy learning was purposeful and relevant to children's experiences, occurring on a daily basis in an incidental manner in most of the middle-class families studied. Investigations of early and proficient readers have shown that although they received some form of direct tutoring from their parents, the initiative for acquiring knowledge about literacy came from the children, who requested information to assist them in finding out about the workings of the alphabetic system (Clark, 1976; Durkin, 1966). The responsiveness of family members (usually mothers) and the willingness to engage in literacy focused activities and discussions were further features of

the home environments that were identified as important contributers to efficient literacy learning.

Other studies have focused on the role of parent as teacher. Hess and Shipman (1965) found a significant relation between maternal "teaching style" and pre-school children's problem-solving ability. They reported that children who were successful academically had mothers who were positive and praised them when engaged in learning situations, whereas a more critical, punitive parental style was associated with less success in children. Hence, they concluded that parents could provide a supportive climate for development that would enable a child to develop self-confidence.

More recently a number of research studies have looked at the extent and form of parental teaching of writing (Farquhar et al., 1985; Hall, 1989). Hannon and James (1990) reported that parents could assist their children's developing writing by modelling writing for a range of functions and purposes, to enable children to begin to understand what being a writer means. The provision of ample learning opportunities, and recognition and celebration of children's achievements were also judged to be important aspects of parental support. In addition, the nature of the interactions that occur between parents and children around writing appear to be significant (Harste, Woodward and Burke, 1984; Hannon, 1995). Indeed, Bradley et al. (1989) proposed a model of early cognitive development that emphasised the reciprocal nature of learning. Hence, the child's early writing status is likely to have an effect on the parents' behaviour, and vice-versa.

Price and Hatano (1991) argue that families can have an influence on the development of a particular area of expertise (e.g. writing) in the following ways. First, the child's motivation to engage in activities that develop writing abilities can be directly influenced by the culture and value systems within families, and this can have a subsequent effect on school performance. Second, the encouragement of family members can increase the

likelihood of children engaging in writing activities, which provides another constructive

means of stimulating and supporting the child's learning. Price and Hatano argue that even

> "... if the child is involved in activities that are not obviously school-like, those activities
>
> may nonetheless enhance school skills. There is, thus, spillover into school performance of
>
> knowledge and skill developed in family-fostered activities. The family can thereby
>
> influence school-related performance in a noninsructional way."

<div align="right">(Price and Hatano, 1991, p. 50)</div>

McNaughton (1995) reports how families can assist and support the developing literacy

skills of young school children. For example, being regularly read to during the pre-school

period is positively associated with good reading progress at school (Wells, 1985b). This

study sought to investigate whether a similar relationship effect exists for developing

writing skills.

Fox and Saracho (1990) reviewed the writing progress of seven children between the ages

of three and five. They analysed the writing samples that the children produced and noted

that the nature of instruction appeared to have an influence on pre-school children's

writing, and recommended that it should be taken into account when judging progress. For

example, children who have had their attention focused on to phonics are more likely to

show sensitivity to the alphabetic principle, and this knowledge will be reflected in the

grapheme-phoneme correspondences observed in their emergent writing.

It should also be borne in mind that families can have a negative influence on school

progress as they can be responsible for the introduction of distracting, irrelevant activities,

they can undermine and undervalue forms of learning and they can create stress and

negative affect around learning through the provision of confusing or ineffective

instruction (Price and Hatano, 1991).

These studies provided the context for consideration of the home variables that influence

writing development in pre-school children, one of the main aims of the study. This was

linked with more specific research questions that sought to identify the relationship between pre-school variables with writing at school entry and at the end of KS1.

1.6 Writing at school

When children start school they enter a new world that is different in many ways from the one they have left at home. The level of interaction with adults reduces substantially, they initiate conversations less frequently and their oral contributions tend to be fragmentary and in response to teacher questions (Wells, 1987).

Before school, early writing experiences, like oral language, are likely to be embedded within the everyday structure of children's lives, but once they start school the writing tasks with which they are presented are more likely to be formalised, structured and disembedded (Dyson, 1984). This change can be interpreted in a positive manner: schooling enables the separation of language and thinking from immediate experience (Donaldson, 1978). Hence, spoken and written language are removed from the familiar context, and school presents children with new frameworks within which discourse occurs, and once these have been learned and internalized, attention can be focused on to the academic content (Cazden, 1988). Some children, however, have difficulty making sense of decontextualised language (Snow, 1983), experiencing discontinuity between their early experiences and those in school. These pupils may be more vulnerable to difficulties accessing the curriculum and connecting with school learning experiences.

The support that children receive from home with developing literacy skills will continue to be related to progress once they attend school. Kroll (1983) reported that children from supportive, literacy focused home backgrounds whose parents have a good understanding of literacy development and ensure their children have a good grounding in reading and writing, progressed well regardless of the methods and quality of teaching in school. Pupils

from less supportive home backgrounds were more susceptible to the effects of inadequate teaching and even where literacy instruction was considered to be good, these pupils still did not progress as well as those from supportive homes.

The fact that children who are well supported with literacy at home make better progress at school has led to a series of studies that have addressed issues relating to home-school literacy liaison and parental inclusion in education. Farquhar et al. (1985) reported that in Inner London schools, almost a third of the teachers of children in the reception classes considered that the majority of parents would not adequately support their children's academic learning and for this reason,

> "Most teachers place clear restrictions on the sorts of academic-related activities which they feel are appropriate for parents to engage in with their children at home. The activities they favour are those of encouraging general language development, prior to school and listening to children read once they have started school."

> (Farquhar, Blatchford, Burke, Plewis and Tizard, 1985, p. 21)

It would appear to be rare for home-school support arrangements to be set up around writing tasks and activities (Hannon, 1995). However, there is evidence that interventions set up to encourage parents to support their children with writing have beneficial effects. Green (1987) ran workshops for parents of five to six year old children and provided general information about literacy and advice about facilitation of writing development. Parents were encouraged to act as scribes and create opportunities for their children to dictate to them, to write to their children for a range of functions (e.g. invitations and notes concerning everyday activities) and to encourage their children to make independent written responses to the writing that had been modeled. Green reported that parents were co-operative and responsive, and their children made better progress with the development of writing than children whose parents had not been members of the intervention group. Hence, recommendations that arose from this study included setting up workshops to

provide advice to parents about appropriate means of supporting writing and putting in place arrangements to monitor and evaluate home-school writing practices.

Shook, Marrion and Ollila (1989) conducted a study of young children's concepts about writing and reported that the majority (94%) of the six year olds studied had positive attitudes towards writing at home. In fact, 57% of the sample preferred writing at home to writing at school, and enjoyment of writing at school continued to decline as pupils moved upwards through school. The researchers speculated that this occurred because:

> "Many children are encouraged to write, draw and paint at home in a safe environment free from requirements such as spelling, neatness and grammatical usage. Whether motivated by the love of writing or its novelty, children are more likely to elicit help from family members than from their teachers. Students may enjoy writing less at school, however, if the teachers' supervision is critical in nature."

> (Shook, Marrion and Ollila, 1989, p. 137)

Snow et al. (1991) examined school factors that were associated with progress in writing and reported that the 5-7 year old children in their longitudinal study who were most successful in learning to write were those who had been provided with regular, extended writing experiences across a range of forms (e.g. narrative, expository). They made significantly greater progress than pupils in the majority of classrooms whose teachers provided fewer and narrower writing opportunities, such as composing single sentences or paragraphs. Frequency of writing in school was significantly associated with attainment, and pupils who were given homework that involved writing also did better. Snow et al. conducted detailed classroom observations in a total of thirty-six classrooms over a two year period, and reported that only three of the teachers assisted pupils with compositional aspects of writing, and in all classrooms very little attention was paid to developing secretarial skills such as spelling and punctuation. They expressed concern about the lack of any more direct or structured teaching arguing that such an omission was evident when analyzing children's writing products:

"It was precisely the craftsman's skills that were so notably missing in the writing samples we elicited from the children – knowledge of how to organize a paragraph, how to punctuate, how to read over a text and correct it. These are skills that do not just develop – they must be taught. Once taught, they must also be practiced."

(Snow, Barnes, Chandler, Goodman and Hemphill, 1991, p. 114)

Some studies have considered classroom organizational issues and whether interactions between peers can facilitate writing development. Jones (1998) conducted a study that analysed the writing products of pairs of friends aged seven to eight years and concluded that quality of writing was influenced by the strength of the relationships. It seems that collaborative working with a close friend can enhance self-reflection and the likelihood of individuals adopting alternative perspectives and make use of metacognitive strategies in text appraisal.

Hence, children start school with differing levels of skill and ability (Blatchford and Cline, 1992) and bring with them a range of experiences and attitudes. The studies reviewed provided the background to this research study, which sought to obtain measures of writing and related skills at school entry, and then to track pupils' progress during their time at KS1 in order to consider the relationship between entry skills, school variables and writing at seven years of age.

1.7 Oral/Written language relationships

Many researchers have considered the relationship between speech and writing (e.g. Vygotsky, 1986; Ede and Williamson, 1980). It is not easy to isolate writing from other language-based activities (such as talking, listening or reading) and there are many overlaps between these complex, interdependent processes. Goodman (1984) and other proponents of the psycholinguistic perspective have argued that development in writing is

related to more general language development. Furthermore, writing can be viewed as a framework for structuring thoughts and ideas, a process that influences intellectual development (Donaldson, 1978).

Sulzby (1996) noted how children's early writing reflects the relationship between oral and written language and the "writer effectively embeds oral speech in a narrative or exposition" (Sulzby, 1996, p. 4). Graves argued that children learn to write as a natural extension of their desire to communicate, and that although

"... writing and speaking are different, (but) writing, without an understanding of its roots in speech, is nothing."

(Graves, 1983, p. 162)

He argued that children experiment in a creative fashion with writing, building hypotheses and experimenting with its conventions in an attempt to discover how the system works and understand the relationship between speech and writing. Graves identified three aspects of the process of organising and ordering relevant knowledge. First, children must gain control over language by learning to structure what they want to say, and then delivering it orally without additional prompts or support in the form of questions and feedback. Second, children learn to establish understandings of narrative frameworks and to retell stories following familiar structures. Finally, they develop a sense of audience and begin to manipulate their utterances to take account of audience needs and interpretations. This requires significant control over cognitive and language processes.

There are some critical differences between talking and writing. As Kress (1994) observed, in learning to write:

"... the stimulation of the interlocutor is missing. And whereas in speech the child creates a text in interaction, now he or she is, for the first time, forced to construct a text without the guide, the prodding, the stimulus of the interaction."

(Kress, 1994, p. 36)

Kress described the qualitative difference between the syntax of speech and writing in young children and argued that writing slows up the complex activity of synthesising information from memory and from different senses. He believed that this slowing-up may assist development as it enables the child to become aware of the processes involved, reflect on them and allow opportunities to begin to gain control over individual elements.

Bereiter and Scardamalia (1987) also discussed the differences between speech and writing proposing that writing competence does not derive from particular skills superimposed over oral language, but that a radical conversion process is involved.

Perera (1986) highlighted clear differences in the written and spoken language of the 8-10 year old children in her study. Written language typically includes more complex sentence constructions because of the increased time for planning. In addition, she discussed the different grammatical choices children make depending on whether they were talking or writing and she detailed the greater variety of grammatical selections in writing. Writing is more formal, displays fewer linguistic redundancies, covers a more varied range of themes and provides more contextual information than speech. Perera suggested that the writing of children younger than eight years is more likely to resemble speech, and any revisions are like those children make in correcting speech.

Chafe (1985) argued that speech is transitory and fragmentary, whereas writing has the opportunity to employ syntactic complexities and be more compact and integrated. This is because of the increased time available for generating writing, and opportunities for planning and editing. Speech is involved and immediate, whereas the audience for writing is often remote. Young children find it difficult to conceive of generating communication that will not necessarily be received immediately, and the lack of interaction and immediacy of feedback can create difficulties. This is the disembedded nature of written language referred to by Donaldson (1993), and she argued that

"... the learning of symbols – how to produce them, how to make sense of them is a profoundly different enterprise from the learning of speech."

(Donaldson, 1993, p. 42)

Soter (1987) also identified differences between speech and writing, pointing out that the identity of participants or context in which discourse occurs does not have to be established in spoken language, but is usually made explicit in writing. Emotion and emphasis can be conveyed through expression and intonation in speech, but in writing, vocabulary, sentence structure and punctuation have to be used to achieve these ends. Writing requires a clear structure and explicit goals whereas these can evolve during spoken discourse.

Akinnaso (1985) acknowledges that there are differences between spoken and written discourse in English, but argues that if comparisons are made between the complex, ritualised, formal oral traditions observed in non-literate societies and written communication patterns in English, the differences become less marked.

When listening to a stream of speech, the boundaries between words are not immediately evident. Children learn to detect word units in speech in infancy, but accessing this implicit knowledge and applying it to writing can cause confusion. This is reflected in the lack of spaces between words in children's emergent written productions. Many of the conventions of writing, such as punctuation and paragraphs have no parallels in speech and present major difficulties for young writers trying to understand and master the system (Kress, 1994).

Hagtvet (1993) reviewed longitudinal studies that investigated the relationship between oral language and literacy development and reported that it is possible to predict the children who will be good readers and writers, as their oral and written language skills are well developed from early on and their performances over time are stable and predictable. The oral-written language relationship is more variable at the average and lower end, as

children exhibit a variety of profiles, related to a range of potential difficulties that can vary over time.

Kroll (1983) discussed the fact that data from the Bristol longitudinal language development project indicated that pre-school oral language development measures did not predict reading or writing ability. He speculated that oral language does have a significant impact on developing literacy but that the data did not support this as most pupils had reached an adequate level of oral competence to render the measures insensitive. He argued that oral language development is extended and enhanced by written language development, and the inter-correlation between the two becomes more apparent as pupils get older.

1.8 Reading/Writing relationships

There is a reciprocal and mutually reinforcing relationship between reading and writing, but the precise nature of the relationship is unclear. Vygotsky (1978) argued that that the process of learning to read should not be considered in isolation from that of learning to write, but that the two processes should be viewed as a continuous developmental activity. Indeed, skills in reading and writing are often taught in an interactive manner in schools, with reading being used to develop writing and vice-versa.

Clay (1983) attempted to detail the interactive and mutually supportive nature of reading and writing development. She argued that early writing involves the co-ordination of motor control and cognition, processes that encourage children to focus on the details of word analysis, which establishes and reinforces this aspect of reading knowledge. Writing also assists the development of procedural, visual and auditory memory, and extends the range of strategies available for checking accuracy.

Graves (1975) argued that the influence of writing on developing literacy has been underestimated and that for young children, writing provides more immediate satisfaction than reading, as adult writing behaviour can be imitated, and instant, observable products obtained. He proposed that young children were more likely to be motivated to write than read initially, and contended that early writing supports developing reading by utilising and reinforcing constituent kinaesthetic, visual and auditory skills.

Similarly, Wells (1985b) argued that valuable opportunities for extending an interest in writing will be missed if children are not encouraged to write before they become fluent readers. He believed that the growth of early writing skills could be established if manual dexterity and language facility were promoted within a broad context of reading and writing activity.

Williams (1996) pointed out that good readers tend to be good writers, but not exclusively so, and cited evidence that widespread reading is in itself an insufficient prerequisite for developing writing competency. As Bos (1991) stated:

> "Generally... the correlations between measures of reading and writing have been moderate, about .60 (e.g. Shanahan, 1984), accounting for 30-40% of the variance. This would suggest that although the two share common knowledge and processes, reading activities alone would not be sufficient for learning to write and vice-versa."

(Bos, 1991, p. 252)

Shanahan and Lomax (1986) also proposed that reading and writing develop in an interactive manner, and that reading knowledge is utilised in writing and vice-versa. They argued that the level and direction of influence vary according to the nature of the component parts. For example, the ability to identify orthographic units within words could influence spelling development but spelling skills are unlikely to influence word analytic reading skills. However, Shanahan and Lomax contended that in other respects spelling could assist the development of parts of the reading process. For instance,

knowledge of spelling could influence and extend vocabulary knowledge in reading when mediated by comprehension. They argued that in schools, curriculum organisation should reflect and take advantage of the interactive nature of this relationship.

Williams (1996) proposed that the method used to teach reading impacts on the strategies that pupils use when writing and suggested that a heavy bias towards phonics teaching will not encourage pupils to consider the deeper aspects of text construction, which is necessary for the development of compositional aspects of writing. Bos (1991) suggested that reading and writing should be taught in an interactive sense and argued that both aspects of literacy can be developed in tandem. He proposed that this could be achieved by creating opportunities for the shared reading of text by groups of pupils, followed by discussion about key features and elements, and leading on to encouraging pupils to focus on these features in subsequent writing. Likewise, Bereiter and Scardamalia (1987) proposed that focusing pupils' attention on to particular aspects of text can increase language awareness and assist in the development of the necessary skills for producing good writing. They stated:

> "Undoubtedly much of the knowledge needed to represent text comes from reading rather than writing..."

> (Bereiter and Scardamalia,1987, p. 357)

and that knowledge of structure and genre in particular are gained through reading and critically appraising texts.

Unlike developmental psychologists, who favour viewing reading and writing as continuous and similar processes, cognitive psychologists have tended to look for differences. For example, Uta Frith's work has sought to draw distinctions between children's reading and spelling, which she argues operate initially in different and independent ways (Frith, 1980).

Gundlach, Farr and Cook-Gumperez (1989) cited in Nystrand (1990) argued from a social interactionist perspective and discussed how young children simultaneously explore reading and writing, describing the reciprocal nature of the relationships as:

> "... shuttling back and forth between writing and reading roles, much as children sometimes play games in which they cast themselves both as parent and child, or teacher and pupil... Writing and reading are each, finally, umbrella terms for many specific culturally-bound activities that vary in character, consequence and significance... Since all literacy is in important respects cultural literacy, the relationship between writing and reading is not inherent in the two activities abstractly considered, but rather is a function of the specific relationships established between the roles of writer and reader in particular communities."

(Nystrand, 1990, p. 10-11)

Nystrand (1990) contended that this relationship is a culturally important one, which establishes literacy as a communicative process in the young child's understanding. He emphasised that even the earliest texts that children produce should be taken seriously, and read if possible. As proficiency increases, texts should be read publicly to larger groups, and direct feedback offered. Nystrand argued that diversity of feedback and writing for a wide audience are crucial to establish the function and communicative importance of writing.

1.9 The Writing Process

The National Writing Project (1991) reported that during the 1970's the teaching of writing in British schools was traditional and mainly preoccupied with outputs or products. Attention was placed on the finished piece of writing and there was a lack of focus on the act of text generation and the processes involved. In most cases the "audience" for the writing was the teacher. However, during this period a growing number of research studies

addressed learning to write from a "process" or "whole language" perspective, an approach that attended to the act of composing. The importance of the learning environment was emphasised along with the child's natural capacity for learning. There was an acknowledgement that writing was linked with cognitive development and behaviour, as well as personal expression. The work of Donald Graves was particularly influential and led to a major shift in teaching practices in schools in this country, North America, Australia and New Zealand.

Graves argued that children have a natural instinct and desire to write, and demonstrated how classrooms can be organised to create the climate of a writing community. This, he believed, would encourage children to behave like writers. In order for them to develop a sense of ownership over their writing, children were encouraged to write regularly and select their own topics as:

"... the force of revision, the energy for revision, is rooted in the child's voice, the urge to express."

(Graves, 1983, p. 160)

Graves' research utilised qualitative research designs and adopted a case study approach. He was critical of experimental, positivistic research methodologies. However his methodology has been criticised on the grounds that that generalisations may have been drawn which are unjustifiable, owing to the limited sample of children from middle-class backgrounds studied (Beard, 1993).

In practical terms, the process approach to the teaching of writing advocated by Graves involves allowing children opportunities to think, talk, draft and edit texts, to convey that writing is a meaningful activity. Objectives tend to be general ones, for example, to increase writing skill and fluency. Children are encouraged to explore, expand and elaborate their ideas about any subject of interest to them and there is a decreased focus on punctuation, spelling and structure. Furthermore, children are encouraged to write for real

audiences e.g. the teacher, peers, others outside the classroom, and eventually for real but absent audiences. They are given opportunities to revise and redraft their writing and there are high levels of interaction with their peers whilst writing is taking place. Within this model the teacher's role is to create a positive classroom climate and act as a facilitator for pupil's writing, responding to written productions with hints and questions that will develop understandings. The teacher avoids becoming a primary source of feedback and structured, didactic teaching is avoided. The emphasis is placed on ideas and content interest, as this is considered to motivate and offer more opportunities for pupils to experience success with writing than teaching that emphasises the mechanical aspects of the process (Graves and Montague, 1991). Scardamalia (1981) argued that children respond well to process-based models of learning and suggested that writing may be difficult for children when they are presented with writing tasks that are developmentally inappropriate, with objectives that they cannot attain.

The writing environment is given greater importance by 'process' proponents, and Teale and Sulzby (1986) advocated providing students with daily opportunities to use a 'writing centre' with diverse types of paper, writing implements and written stimuli. Strickland and Morrow (1989) encouraged teachers to model the writing process for their students. Calkins (1986) and Graves (1983) advised teachers to arrange their instructional environment so that students have regular blocks of time to write, select their own topics, draft their ideas, obtain peer responses, before revising and publishing their work.

Graves (1983), Czerniewska (1991), Bissex (1980) and others advocated "conferencing" where pupils are encouraged to discuss ideas and compose, edit or organise material with a teacher, on a one to one basis, in order to emphasise the communicative purpose of writing and develop the sense of audience or readership. As proponents of a social interactive model of writing, Fitzgerald and Stamm (1990) advocated group writing conferences. These involve teachers and groups of pupils asking questions and making comments about

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an individual's writing, in order to sharpen up the writer's sense of audience and alert them to possible interpretations of their text. Revisions are made in the light of the group conferences. Williams (1996) acknowledged that in practice, writing conferences are time consuming and can be difficult to accommodate in a busy timetable. However, he stressed their importance and recommended that teachers should aim to hold a conference lasting ten to fifteen minutes with each individual in their class two or three times a term.

A dominant model for developing writing in British primary school children during the previous decade was to set up regular writers' workshop sessions. The ideas underpinning this were derived from the process writing movement. All pupils wrote at once, about subject matter of interest to them, and in order to ensure pupils focused on the compositional aspects of writing they were not offered access to resources such as dictionaries and word-books. In first drafts, invented spellings were encouraged and the presentational requirements (such as neat handwriting) were minimal.

One of the criticisms of writers' workshop is that pupils are encouraged to choose their own topics and write what they want. Hillocks (1986) cites evidence that indicates that such a model reinforces pupils in using 'knowledge telling' i.e. recording one idea after another, with no overarching plan or structure and little connectivity between earlier and later ideas. Hillocks believes pupils should be encouraged to write for a purpose and develop ideas within an identified framework, and argues that writers' workshop sessions do not assist them in doing this.

1.10 Compositional aspects

1.10.1 Planning

Planning is integral to composing and involves generating and organising ideas and formulating routes to compositional goals. It is a wide-ranging activity and involves

decisions about style and meaning as well as selection of content. Plans can be written, presented diagrammatically or held in memory. Young writers are less likely to spend time planning than older writers, in whom planning as a process has been studied in some detail (Bereiter and Scardamalia, 1987; Reece and Cumming, 1996). This is because the burden of low-level mechanical demands on young writers restricts the amount of attention available for planning. Young writers tend to plan by generating text ('on-line planning'), searching memory for relevant content to the subject, and writing it down as they think of it (Graham, Schwartz and MacArthur, 1993). Berninger et al. (1996) reported that on-line planning emerges before preplanning.

Kellogg's (1988) research demonstrated how the quality of writing could be improved by making use of an outline generated beforehand. He also reported other studies that confirmed this finding and the fact that individuals who generate an outline before beginning to write consistently produce text of a higher quality than individuals who plan whilst in the process of writing (Kellogg, 1994). He hypothesized that this may occur because prior production of an outline reduces the need for on-line planning, enabling the individual to channel attentional resources on to translation. Reece and Cumming (1996) also produced evidence that guiding children in formulating plans can reduce attentional overload.

1.10.2 Transcription

Berninger et al. (1991) argued that children learn to translate and transcribe spoken language before they develop an understanding of review and revision, and that

"... developing writers become authors before they become editors."

(Berninger, Mizokawa and Bragg, 1991, p. 59)

Berninger et al. (1992) found that in developmental terms beginning writers who experience difficulties tend to fall into one of the three following groups:

1. Some children can generate ideas but have difficulty with producing the language to express their ideas.

2. Some children can generate the oral language to express their ideas but do not have transcription skills that are sufficiently developed to be able to encode them in a fashion that can be read back satisfactorily.

3. In some children, transcription develops more rapidly than text generation. They will produce little writing and say they were unable to think of what to write although their handwriting may be legible and spelling accurate.

They contend that text generation and transcription skills may develop at different rates and that individual profiles will vary from pupil to pupil.

1.10.3 Revision

There is some disagreement about the value of children's revision and rewriting. Wilkinson (1986a) suggested that it is less than beneficial, citing Scardamalia and Bereiter's (1983) finding that children's revised texts were frequently of poorer quality than the original versions owing to their difficulties appraising their writing due to insufficiently developed metacognitive strategies. However, Graves (1979, 1983) and Bauers and Nicholls (1986) argued that young children not only make changes but enjoy the revision and redrafting process of writing. Developing writers tend not to spontaneously revise their writing and indeed have problems identifying errors, but they will do so if encouraged and assisted (Cameron, Hunt and Linton, 1996). Similarly, Berninger, Fuller and Whitaker (1996) reported that pupils rarely made revisions to their writing without guidance from teachers, and that any revisions made were small and 'local' rather than across the text as a whole.

1.11 Handwriting

Handwriting not only involves learning to co-ordinate physical movements to produce legible letters (motor and perceptual skills) but also requires an understanding of the writing system.

Alston and Taylor (1987) presented arguments emphasising the importance of attending to the development of handwriting in young children, on the grounds that the impact of the process writing movement had been to focus teachers' attention away from handwriting on to the compositional aspects of writing. They contend that from the outset accurate learning of the physical skills required to produce text is crucial, as incorrectly established motor patterns are extremely difficult to unlearn.

Sassoon (1990) stated that from early on, pupils need to be taught the correct movements in letter formation and aspects that affect legibility, such as height and spacing, arguing that any teaching programme needs to be delivered in a systematic manner. However, she played down the importance of neatness, and advocated that pupils should be allowed to develop their individual style and encouraged to write at speed, for handwriting to become automated as early as possible.

Kellogg (1996) argued that for children beginning to write the physical demands of the task are substantial, and other cognitive processes will be suppressed whilst it is occurring. He stressed that it is only when automaticity with handwriting is achieved that mental capacity can be freed up for dealing with other aspects of the writing process, such as compositional demands. Hence, learning to write at speed has implications for the development of wider elements of the process (Mojet, 1991).

As Browne stated:

"Children who are at ease with the writing system, writing implements and resources and have established an automatic knowledge of correct shapes and joining strokes are likely to produce clear, fast and economical handwriting. Insisting on correct movements from the earliest days will help children to make smooth progress towards acquiring a flowing hand."

(Browne, 1999, p. 130)

Many children find this difficult, and Laszlo (1986) reported that the perceptual-motor skills of approximately one third of all five-year old children are not sufficiently developed to produce writing of the size and quality that many adults expect. Hence, from the outset written productions are evaluated negatively with little account made for children's developmental competencies.

The literature on handwriting contains much debate about issues such as appropriate pencil grip (Zivani, 1987), the use of lined paper (Pasternicki, 1987), positioning of models used for copying (Alston and Taylor, 1987; Hughes, 1997), posture (Sassoon, 1990) and advantages of different handwriting styles and scripts (Cripps and Cox, 1989; Sassoon, 1990). However, these aspects are not reported in detail as they did not influence the design of the study.

However, it is important to bear in mind that handwriting is only one aspect of the writing process although there is evidence that

"... children often judge the success of their writing by its neatness, spelling and punctuation rather than the message it conveys."

(National Writing Project, 1990, p. 19)

Hence, it is important for teachers to encourage pupils to appraise their writing in a positive and holistic sense and to attempt to teach handwriting in a thorough, sensitive and interesting way. Browne (1999) suggested that repetitious practice of letters and patterns is dull and tedious and copying from the blackboard will be extremely difficult for those

children who do not possess sufficiently well developed hand-eye co-ordination and grapho-motor control to cope with the task. Approximately 30% of pupils will experience such difficulties according to Lazlo (1986) and Harvey and Henderson (1997).

Many elements of a traditional handwriting curriculum are well established in early years classrooms. Laslo and Broderick (1991) conducted research that produced evidence that challenges the assumptions underpinning some of these early handwriting activities. They concluded that dot-to-dot and tracing exercises do not assist children to develop the perceptual-motor planning skills that underpin handwriting, and have little benefit. They also stated that copying continuous patterns have little value for the majority of pupils with adequately developed kinaesthetic skills (i.e. awareness of extent and direction of movement). They cited evidence that it will not assist kinaesthetic processing in the 30% of 5-6 year olds experiencing difficulties, as the transfer of skill between these exercises and handwriting is minimal. This is supported by other studies (e.g. Mojet, 1991). Laslo and Broderick favour the teaching of cursive writing, presenting arguments that it supports kinaesthetic development more effectively than printing which they view as a difficult, disjointed task. This argument is supported by Jarman (1990).

Sassoon (1990) described how difficulties with one aspect of writing impact upon others. For example, a pupil with spelling difficulties may pause regularly whilst writing, and the loss of flow may result in irregularly spaced and uneven handwriting. Hence, the difficulties may superficially appear to be related to motor control and fluidity of movements, but closer analysis would reveal this to be a symptom of a spelling problem. Links between handwriting and spelling have been demonstrated by other studies (e.g. Cunningham and Stanovich, 1990; Peters, 1970) and Cripps and Cox (1989) argued that cursive writing can increase spelling accuracy since linking letters together in joined writing aids the pupil's retention of letter strings through motor or 'procedural memory'. They argued that this leads to more automatic spelling that assists the development of more

fluent handwriting, each process supporting and developing the other. The controversy about the most appropriate point at which to introduce cursive script is hotly debated in the literature (Cripps and Cox, 1989, Sassoon, 1990) and this is reflected in varying practices and policies in schools (Browne 1999).

Sassoon (1990) also highlighted how tension, fatigue and psychological difficulties can be reflected in a pupil's handwriting, which can act as a barometer of their emotional well-being.

Handwriting is now on the educational agenda and the programmes of study for KS1 of the National Curriculum require pupils to be taught:

> "... the conventional ways of forming letters, both lower case and capitals. They should build on their knowledge of letter formation to join letters in words."

(DfE, 1995, p. 10)

Specific objectives relating to handwriting are also incorporated into the National Literacy Strategy from the start of Key Stage 1.

1.12 Spelling

Children begin to spell with their earliest writing attempts and as they develop their spellings will approximate towards conventional versions of words. Clay (1987) described these early efforts as 'invented spellings' and suggests that they

> "... can lead to control over writing that frees the child to write the messages he wants to write."

(Clay, 1987, p. 59)

Gentry (1982) in an analysis of developmental spelling in Bissex's 1980 publication 'GNYS AT WRK' argued that the errors children make change over time and a clear pattern of stages can be observed:

1. The child's earliest spelling attempts are described as pre-communicative. They use letter-like forms mixed with random letters to mimic the writing activities they have observed such as writing of shopping lists and communication of messages. This is sometimes referred to as 'pretend writing'.

2. Pre-phonetic spelling indicates that the child is beginning to understand the letter-sound relationships in the alphabetic system, and produces abbreviated combinations of letter names and letters representing speech sounds.

3. Increasingly, the child's spelling attempts will map grapheme-phoneme correspondences, but attendance to sounds rather than acceptable letter combinations are evident. This is called the phonetic stage.

4. Phonetic spelling passes through a transitional stage before attempts become increasingly conventional. At this stage the child's spelling indicates a more secure knowledge of grapheme-phoneme correspondences and an understanding of spelling conventions such as the inclusion of a vowel in every syllable. The child's visual memory is developing through increased experience of text through reading. Spelling errors tend to be plausible phonetic alternatives.

5. The child has a good knowledge of English orthography, its conventions and exceptions, and spelling of irregular words is mostly accurate.

Frith (1985) discussed the relationship between reading and spelling development and proposed a model that charts how the two processes interact with and drive each other in an out of step manner. The first stage Frith described is the 'Logographic' stage which

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involves the recognition or recall of whole words by configuration, using visual, non-phonetic strategies. This equates with Gentry's pre-phonetic stage. This is followed by the 'Alphabetic' stage, so called because children begin to use alphabetic or phonetic strategies and demonstrate an understanding of grapheme-phoneme correspondences. Children are more likely to apply their phonological knowledge to spelling than reading at this stage and this is exhibited in the semi-phonetic or phonetic errors described by Gentry. The third stage that Frith described is the 'Orthographic' stage where pupils demonstrate an understanding of conventional English orthography. At this stage, visual strategies become increasingly important in the recall of irregularly spelt words.

Goswami and Bryant (1990) conducted research to compare the processes of learning to read and learning to spell and were unable to find evidence to support the existence of the logographic stage in developing spellers. They argued that at first, children rely mainly on the phonological code but at a reading age of about seven, they become more flexible and treat the processes of reading and spelling in a more similar way. Pupils with literacy difficulties, however, seem to persist in using one strategy for reading and another for spelling for longer periods and appear to have difficulty moving to the next stage (Bryant and Bradley, 1985). This research perspective has tended to generate ideas about the teaching of spelling which are very specific, structured and individualised.

There is considerable debate about the most appropriate approach to take in developing children's spelling knowledge. Gentry (1982) suggested that it is only when children have reached the transitional stage of spelling outlined above that they will benefit from spelling instruction. Whitehead (1985) argued that spelling need not be taught in a formal manner to children at KS1 and correct spelling should not be insisted upon in children's first writing drafts. She believed that an insistence on giving children every word they wish to write deprives them of opportunities to develop their own hypotheses about the relationships between the sounds of words and their written signs. An overemphasis on

accurate spelling from the start may lead to anxiety and reluctance to experiment with language that inhibits the development of interest and understanding about how the system works. By allowing children to create their own approximations to standardised spelling, the importance of having something to say will take priority over distracting and demanding secretarial aspects of the process.

Bissex (1980), Graves (1983) and others share the view that allowing children to invent spelling maintains the flow of ideas and that writing productions will be inhibited when teachers insist upon correct spelling. However, there is an alternative position advocating that more systematic teaching needs to occur in order for children to develop an adequate visual memory for words, particularly irregular ones.

Margaret Peters (1985) discussed the characteristics of children who have successfully learned to spell and stressed that knowledge is not 'caught' but dependent on the positive, systematic interactions with adults within the context of the child's writing. She described the process thus:

> "Spelling is not....'caught' just through reading. It is certainly not through listening, since the English spelling system can have more than one spelling for any one sound, e.g. cup, done, does, blood, tough, and more than one sound for any one spelling e.g. does, goes, canoe. It is almost certainly 'caught' in the early years through looking in an intent way. It is 'caught' through the child's developing forms of imagery and serial reconstructions and, as a consequence of this, becoming accustomed to the probability of letter sequences occurring. The children who have 'caught' spelling are familiar with these sequences in the world around them. They are ... sensitized to the coding of English and this is a benign social context where parent's and teachers are reviewing, commenting on and predicting events in the child's day e.g. shared activities which are regulated in the child's speech and writing."

(Peters, 1985, p. 37)

1.13 Punctuation

Ferreiro & Teberosky (1982) argued that children's knowledge of punctuation grows out of their experience of writing. They provided evidence that young children are able to differentiate punctuation from letters and numbers but are unclear about its function. Children do not punctuate their earliest writing, and it is only when they begin to write and read back text of increasing length that the need to demarcate units of meaning becomes apparent. However, as Ferreiro and Zucchermaglio (1996) noted:

> "Punctuation marks introduce graphic elements that are alien to the main principles of an alphabetic writing system. Children must deal with them as an autonomous subsystem that does not affect the letters themselves (except in the distribution of lower and capital forms of the letters)."

> (Ferreiro and Zucchermaglio, 1996, p. 179)

In addition to its rather abstract nature, children are likely to find learning about and applying the rules of punctuation difficult, as it is related to the syntax and conventions of writing, rather than speech (Kress, 1994). Hence, there is not necessarily a direct correspondence between punctuation and intonation, sentences and units of meaning, paragraphs and textual structure and so on. Furthermore, rules of punctuation are variable, and there are often inconsistencies between authors in usage (Perera, 1996).

Browne (1999) suggested that when pupils are aged about 6 years old they should be encouraged to begin to punctuate their writing. She argued that skills training exercises presented out of context have limited value as there is little transfer into pupils' own writing, and suggested they are avoided. Likewise, Martens and Goodman (1996) wrote:

> "... such exercises, far from clarifying concepts of punctuation, are more likely to engender confusion as they replace sense by imposing routine in a totally decontextualised manner."

> (Martens and Goodman, 1996, p. 52)

Instead, pupils' attention should be focused on to punctuation when discussing and evaluating their extended writing.

The National Literacy Strategy Framework for Teaching (DfEE, 1998) suggests that by the end of KS1 pupils are expected to demonstrate an understanding of punctuation and features such as use of capital letters, full stops, and question marks, should be evident in their writing.

Such understandings are linked to children's conceptualisation of what a sentence is. Robinson (1996) cited teacher interviews that outline how problematic the concept of the sentence is to define, explain and teach. Kress (1994) argued that teachers' insertion of full stops and capital letters as corrections in their pupils' early writing attempts are ill advised. Such actions send negative and critical messages, and indicate a lack of awareness of the complexity of the task for many children. Frequently pupils are aware of the need to divide their text into units of meaning, but do not fully understand the criteria by which they should do this. Hence, children's early writing attempts frequently contain random full stops inserted after the composition has been completed. However, like spelling, pupils' errors with punctuation reveal their understandings about how the system works (Hall, 1996) and have diagnostic value. Kress suggested that:

> "Perhaps the major part of learning to write consists in the mastery of the linguistic unit of sentence..."

> (Kress, 1994, p. 71)

and current indications are that facilitative teachers and authentic writing tasks will guide pupils towards improved understandings.

1.14 The Writing Curriculum

In their early years, spontaneous play, direct experience and social interaction appear to be important elements of an effective learning environment (Vygotsky, 1986, Wadsworth, 1989). From a constructivist perspective, children are viewed as active learners whose knowledge grows and is built on at a level appropriate to their development, whilst interacting with their environment. Existing knowledge and understanding acts as the basis of deeper and richer knowledge and understanding, and it is participation in learning that enables children to access and apply what they know (Harris and Graham, 1994). Morrow et al. (1998) argued that a literacy curriculum should link with these theories of child development, and classroom activities should be rooted in children's direct experiences in order for them to be perceived as purposeful, meaningful and authentic. Furthermore, it is argued that many children benefit and learn more efficiently if literacy strategies are taught directly in an organised and systematic fashion using well scaffolded tasks (Beed, Hawkins and Roller, 1991).

During the 1980's and 1990's there was much debate about the most appropriate approach to take in the teaching of writing. The traditional approach to teaching writing involved children undertaking activities in a graduated, staged manner. Initially, they were taught letter formation through tracing, then copying from a model. At a more advanced level they would be asked to compose simple sentences, using individualised 'word books' or dictionaries for vocabulary, eventually moving on to composing connected discourse such as stories, plays and poems. Hence, the traditional approach focused on clarity, organisation and mechanics, with formal instruction being at the centre of teaching. Proponents of this approach contended that because of the necessarily specific and formal approach to instruction, children should not be taught to write before starting school and that it should follow learning to read. It was also assumed that children acquire a basic knowledge about grapheme-phoneme correspondences through their early reading, leading

to a heavy emphasis on teaching children to print letters, usually through copying from models. Once copying letters was mastered, pupils were given additional help with the spelling of more difficult words and learning about different forms of writing e.g. writing stories or making diary entries. This is in direct contrast to the process writing, or whole language approach described earlier.

Delpit (1988) argued that the debate over whether skills training or process writing approaches are more appropriate represents a false dichotomy, and that a combination of the two approaches is necessary for the most efficient learning. She put forward the view that a whole language approach should be central to a writing curriculum, as pupils need to write for real audiences and real purposes in order for them to engage with and be empowered within the learning process. However, in addition, students require direct teaching about the technical aspects of writing as well as the opportunity to take part in individual writing conferences with teachers. She argued strongly for the direct teaching of writing conventions, taught within a framework of meaningful, authentic writing experiences, rather than out of context.

Dremer (1990) distributed a questionnaire about teaching writing to 38 student infant teachers in California and found that the majority favoured a process approach to teaching writing but that certain concerns were consistently identified. The first related to the level of formal instruction that was acceptable within the model. Conflicting advice and debate around the advantages and disadvantages of process and traditional approaches had served to fuel uncertainties on the part of teachers about the most efficient and desirable practices. The research also suggested that the evaluation and assessment of pupil's progress needed to be addressed. Many teachers who advocated a process writing approach rejected standardised testing or evaluation of writing samples as a means of assessment. Others demonstrated a lack of clarity in their thinking about assessment issues, and rarely

evaluated pupils' writing or progress. Dremer suggested that the use of a checklist would assist with this.

The finding that some teachers do not adapt their teaching to accommodate the needs of individual pupils within the curriculum available to the larger group has been reported elsewhere (see Harris and Graham, 1994) as has the view that a whole language approach, with no attention to individual skill development, results in teachers failing to teach adequately (Kronick, 1990; Delpit, 1988). Kronick advocated an approach that is broad based and eclectic, arguing that teachers need to individualise their curriculum delivery, whilst maintaining a degree of creativity and accountability. She warned against teaching programmes that were too highly structured as they can mean that:

"... the erection of scaffolding that is so excessive that students are not collaborators in learning."

(Kronick, 1990, p. 6)

Furthermore, she argued that the difficulty with the alternative extreme, a pure whole language approach, is that it:

"... denies (pupils) potency through its aversion to addressing areas of weak functioning and its ungrounded assumption that students with learning difficulties will master the rule or procedural level as a matter of course."

(Kronick, 1990, p. 6)

Cameron, Hunt and Linton (1996) argued that the quality of young writers' productions is influenced by a combination of the level of development of the interacting sub-processes underpinning the individual's writing, and an appropriate level of contextual support. They contend that insufficient support can be the source of reduced text quality and that young writers in particular need a high level of "textual expression support". This should seek to work within the pupil's "zone of proximal development" (Vygotsky, 1978). Cameron et al. also stated that it is important for teachers to have clear knowledge and understanding of

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pupils' current levels of writing attainment across a range of component skills and challenge pupils to move beyond them. They proposed that creating opportunities for pupils to read out their writing to an interested audience, followed by questioning, discussion and evaluation, would assist in the development of the metacognitive strategies needed to develop written skills further. Cameron et al. reported that young children are able to adapt their writing according to audience. They also stress the need to give pupils the opportunities to write about topics of high interest value to increase motivation and enjoyment.

Webster et al. (1996) conducted a series of classroom observations and reported that the proportion of time pupils spent generating writing was very limited, and that for each observational period of one hundred and twelve minutes, children only spent a mean of two minutes writing, with a range of between zero and thirty-six minutes. The researchers reported no significant differences between year groups, contrary to their expectation that older primary aged pupils were more likely to be presented with extended writing tasks than younger, less competent writers. They noted that most writing experiences were "fragmentary and discontinuous" (Webster, Beveridge and Reed, 1996, p.147), and that there was little evidence of progression in teaching or an awareness by teachers of appropriate developmental expectations. They concluded that there was a need for the amount of time pupils spent writing to be increased. Similarly, Williams (1996) argued that pupils' writing performance would improve by requiring them to write more frequently, recommending that opportunities should be created to increase writing opportunities across the curriculum.

The debate surrounding the most appropriate means of teaching writing provided the background to this study, as variations in classroom practices as well as the amount of time spent engaged in writing are likely to have directly influenced participant's experiences in

schools. This study aimed to investigate these school variables and consider their influence on subsequent writing development.

1.15 Writing Instructional Issues

1.15.1 Writing difficulties

Children who experience writing difficulties do so for a variety of reasons. They may experience problems with the secretarial components e.g. difficulties with fine motor control and hand-eye co-ordination leading to problems with handwriting (Berninger et al., 1991). They may have problems with phonological coding, and limited knowledge of grapheme-phoneme correspondencies leading to difficulties with spelling (Snowling, 1994). Alternatively, they may have difficulties with the compositional aspects of writing, such as the generation of ideas, or ability to structure text, or they may lack metacognitive knowledge of the processes involved in writing (Englert and Raphael, 1988). Kraker (1993) found that seven year old children with learning difficulties were less likely to use writing as a mnemonic aid than their peers and hypothesized that this could be due to lack of metacognitive awareness about the use and purposes of writing, compounded by a lack of confidence and avoidance behaviour.

Hagtvet (1993) in a review of longitudinal studies into language and literacy development noted that pupils experiencing writing difficulties were more likely to have uneven developmental profiles and display a range of difficulties. Overall, they produce less writing, with more inaccuracies, poorer organization and weaker content (Tindal and Parker, 1991; Graham and Harris, 1996).

Berninger et al. (1991) argued that difficulties with secretarial aspects of writing (which they refer to as low-level writing subskills),

"... may contribute to future writing disabilities either directly (because of the enormous amount of sustained effort needed to produce written words) or indirectly (owing to an aversion to writing that generalises from early frustration with production of alphabet letters)."

<div align="right">(Berninger, Mizokawa and Bragg, 1991, p. 61)</div>

The authors hypothesised that difficulties with recalling and writing letters could be linked with difficulties with visual memory and retrieval, and that lack of automatization results in energy being diverted away from higher-level compositional skills. Indeed, Mavrogenes and Bezruczko (1993) reported that poorer writers are inclined to focus on secretarial rather than compositional aspects when writing. However, some pupils develop adequate handwriting, spelling and language skills, yet experience difficulties with cognitive aspects of the process such as planning, translating and revising.

Hence, pupils can experience writing difficulties in a range of areas and levels, and so accurate assessment is important to determine the precise nature of the problem. Browne (1999) suggested that any assessment addresses:

1) secretarial aspects,

2) compositional aspects,

3) attitude.

There is little advice available to teachers about the best approach to take in assessing individual pupil performance with this multi-faceted activity. Definitions of 'good' writing are likely to vary from assessor to assessor depending on the emphasis they give to individual components of the activity (e.g. secretarial or compositional elements). Indeed, Eisner (1993) indicates that it is difficult to achieve 'procedural objectivity' in assessing the content of writing, since the definition of a 'good' piece of text is likely to be open to individual interpretation and opinion.

1.15.2 Programmes

There is evidence that pupils experiencing difficulties with learning to write respond to planned, targeted instruction, providing that intervention is early enough to avoid the impact of the negative effects of failure (Hagtvet, 1993, Tindal and Hasbrouck, 1991). Berninger et al. (1991) argued that assessment of individual profiles should precede any intervention planning as it is possible that

> "... constraints will be operating at more than one level and the educational plan will need
>
> to address each level involved. The general principle to keep in mind, however, is to
>
> remediate low-level neurophysiological constraints, if present, to free up attentional
>
> resources for the higher order nonautomatic aspects of the writing process at the linguistic
>
> and cognitive levels."

<div align="right">(Berninger, Mizokawa and Bragg, 1991, p. 67)</div>

In addition to specific interventions targeting the mechanics and conventions of writing Kraker (1993) argued that pupils frequently require assistance in developing organisational strategies.

Englert and Rozendal (1996) described the process of literacy acquisition in two pupils with longstanding difficulties and highlighted two general themes that they believe positively influenced learning outcomes. The first was the value of teachers assisting pupils in developing awareness of effective writing strategies, and the second, the importance of teacher's responsiveness to the developmental levels of students. They cited evidence from case studies that illustrated the value of instructional scaffolds to support and extend pupils' learning. They argued that emergent writers should be encouraged to use invented spelling in the first instance, but that structured methods to develop an accurate spelling vocabulary should be introduced fairly rapidly. They described the display of high frequency, irregularly spelt words, posters incorporating specialised vocabulary with accompanying illustrations, and personal dictionaries introduced in a

graduated fashion as a means of supporting spelling. Englert and Rozendal highlighted the need for individualisation of support and argue that direct and specific links between the instructional scaffolds and the pupils' level of writing development need to be established. They also discussed how individual programmes can focus on the development of compositional skills and they advocated techniques such as brainstorming (using character and conceptual maps) to generate ideas, and organisational strategies such as categorisation and mapping to assist pupils structure their writing.

Tindal and Hasbrouck (1991) presented a case for individualised, broad based programmes which involve teachers in an active, instructional role – setting specific, structured writing tasks and designing activities which assist pupils in planning and evaluating their own texts.

They stated:

> "In the end, instructional programs need to be integrated with assessment procedures and focus on many diverse elements of written expression, such as story ideas, organization-cohesion, and mechanics-conventions. Differential emphasis should be provided to such programs, addressing certain aspects of writing which are likely to change over time and across individuals."

> (Tindal and Hasbrouck, 1991, p. 244)

It has been argued that any programmes which are set up to develop the writing skills of individuals pupils should be embedded in the overall curriculum as far as possible and make use of authentic tasks. Teaching writing sub-skills in a decontextualised manner presents the writer with problems when they are required to use the skill in context and when they are required to coordinate it with other related skills. Furthermore, if writing is not conceived and taught as a holistic process, pupils will not gain sufficient experience in utilising and orchestrating the range of strategies required to produce good writing (Englert and Palincsar, 1991).

Over the last two decades Graham and Harris have developed a model for supporting

writing development in those pupils who find writing challenging. It is called *self-*

regulated strategy development and pupils are taught strategies for planning and revising

in an explicit and systematic fashion, along with procedures for the self-regulation of

behaviours that can adversely influence performance, such as negative thinking. The aim

is to develop compositional abilities in conjunction with increasing an awareness of the

key features of good writing that can be applied in an autonomous fashion by the

individual. The process also aims to develop positive attitudes. Evaluation studies have

indicated that teaching pupils self-regulated writing strategies improves the quality and

quantity of written compositions and indications are that improvements are maintained

over time (Graham et al., 1991; Graham and Harris, 1993). However, strategies learned do

not appear to generalise across genres.

1.15.3 Motivation and affect

The importance of motivation and affect are highlighted by Hayes (1996) who cites Finn

and Cox (1992) and their finding that pupils' educational achievement scores were highly

correlated with their levels of engagement in relevant task activities, a relationship which

points to the centrality of affect and motivation in the development of writing competence.

Hence, pupils who enjoy writing are more likely to sustain concentration when writing and

produce text of a higher quality than pupils who do not enjoy writing and tend to

procrastinate. Also, Hayes argues that that negative affect can block the efficiency of the

system. Furthermore, the emotional repercussions of failure can perpetuate the negative

experiences associated with writing for some children and can lead to reluctance and

avoidance behaviour in the future.

Likewise, Mavrogenes and Bezruczko (1993), in their report of a longitudinal study

seeking to identify influences on children's writing development, found that better writers

made more effort, had a more positive attitude, were generally more mature and motivated, and both they and their teachers had higher expectations of success with writing. As a result Mavrogenes and Bezruczko recommend that teachers pay more attention to affective factors and aim to boost children's self confidence and communicate higher expectations. Such teacher behaviour, they argue, will result in improvements in motivation, effort and attitude in pupils.

Graham, Swartz and MacArthur (1993) report a study where they compared the attitudes to writing between pupils with learning difficulties and their peers whose achievements were judged to be normal. Although the pupils with learning difficulties experienced problems with writing, they were not negative about the activity, and indeed overestimated their abilities, apparently lacking the metacognitive skills necessary to appraise their own performance accurately. Mavrogenes and Bezruczko (1993) also noted that pupils' self assessments of writing attitude and performance did not correlate significantly with writing ability, nor did their parents' assessments. However, their teachers' assessments of

"... maturity, motivation, self-confidence and behaviour were consistently and significantly correlated with writing ability. Schools do not have complete control over affective characteristics, but it seems that they might directly influence teacher expectations and student self-confidence, which, in turn, might influence other characteristics such as effort, attitude, motivation and behaviour."

(Mavrogenes and Bezruczko, 1993, p. 244)

Browne (1999) stresses that positive attitudes are central to effective learning stating:

"... increases in knowledge or ability are not the only consequences of learning. Learners also develop attitudes towards what they learn and construct a picture of themselves as successful or unsuccessful learners. Attitudes, perceptions of the subject's relevance and self-concept can affect how much learning takes place and how easily it is acquired. The curriculum that is offered to children, the way it matches and builds on their existing

abilities and understanding and the way adults respond to what children do can have an

important and lasting impact towards writing and their interest in learning to write."

(Browne, 1999, p. 54)

This study sought to investigate the association between children's attitudes about writing

with their writing competence at the end of KS1, as one of a range of school variables

selected to address the research question exploring this relationship.

1.15.4 The role of the teacher

Czerniewska (1992) wrote:

> "Within schools, the writing a child develops is the result of the interactions between the
> teacher, child and the task."

(Czerniewska, 1992, p. 75)

Vygotsky's theories emphasising the importance of the social interactions around learning

have already been described. The interactive dialogue between the pupil and teacher has a

key role in learning to write and teacher input that is focused and appropriately pitched will

inform and guide the development of pupils' strategies (Geekie and Raban, 1993). Social

interaction around the process of writing also enables teachers to assess existing levels of

knowledge and skill and to tailor their input to match this. Geekie and Raban describe how

the role of the teacher and interactions around writing adapt as pupils develop confidence

and competence. They report that initially, it is appropriate for teachers to assume a

directive role in helping pupils with writing tasks, monitoring progress closely and

intervening rapidly if pupils appear to be confused or lack understanding. They discuss the

importance of interactions that are task specific but individualised, in order to assist pupils

to develop understandings appropriate to their developmental level. Over time, the

negotiated interactions are reduced and teacher intervention is delayed, and this leads to increased pupil independence and responsibility for achieving the task goals.

Hillocks (1986) reviewed studies that evaluated the effect of feedback on writing quality and reported that a combination of peer and teacher feedback is more effective than teacher feedback alone. He emphasised that it is important for feedback to be given during writing not just on completion of a piece of writing. Bos (1991) highlighted the importance of teachers modelling the skills being taught as well as creating regular opportunities for pupils to apply their knowledge about writing.

Jerram, Glynn and Tuck's (1988) study evaluated the effectiveness of teachers' written feedback about the content of their pupils' writing. Teachers were encouraged to provide positive, interested comments about the content of the writing and ignore any spelling or grammatical errors. They used the pupil's name in the feedback, which was written on the same day and returned immediately to the pupil. The authors speculated that contextual factors shape the way children approach writing and that antecedent and consequent events around writing tasks are highly significant in the development of the pupil's attitude to the activity. They argued that frequently, the teacher is the pupil's natural audience and their responsiveness to the content of writing assists the development of the pupil's metacognitive control over their writing. Indeed, the results did indicate a positive effect. There were significant increases in both writing rate and quality during the experimental period of regular written feedback, which dropped back when it ceased. It was found that the nature of teacher's comments influenced the focus of subsequent writing as well as having a reinforcing effect. Hence, it would appear that specific written feedback has value and teachers should use it as a tool in conjunction with oral feedback.

The role and attitudes of the teacher, and interactions between teachers and pupils around writing tasks were identified as school variables to be studied in relation to writing at the

end of KS1. These were considered in addressing the research question, 'What is the relationship between school variables and writing at outcome?'

1.15.5 ICT and writing

The last decade has seen a surge in the availability and accessibility of computers within the education system, and Information and Communications Technology (ICT) is increasingly being used to support pupils with their writing (Clifford and Miles, 1998). Computers in classrooms are now commonplace, and pupils regularly have experience of word processing. This offers the advantage of enabling children to produce well-presented text, which is more accurate and easier to read. The research is inconclusive about whether word processing leads to an improvement in the quality of writing although there is some evidence that pupils are more likely to revise what they have written on word processors (Cochrane-Smith, 1991).

Banglert-Downs (1993) reported that the groups who benefited most from word processing text were younger pupils and those with learning difficulties, although this was variable and dependent upon a range of contextual factors. The main disadvantage of computer use for many pupils relates to the difficulties of typing material in and problems with learning keyboard skills. However, rapid developments in the efficiency and affordability of voice activated software means that this technology is increasingly becoming available to counter such difficulties. Bereiter and Scardamalia's (1982) research demonstrated that children produced more writing of a better quality when speaking or dictating to a scribe. It seems that releasing them from the burden of transcription (handwriting, spelling and punctuation) assisted the production process. The word processing of dictated speech offers pupils the opportunity to override the mechanical demands and focus their attention on to the compositional aspects of text generation. Sulzby (1985) also demonstrated that the dictated stories of young children show some superior features to those they have

transcribed themselves, and the added feature of being able to connect dictated text with an emerging visual representation on the screen offers developing writers relevant and structured writing experiences (Reece and Cumming, 1996). This can directly benefit pupils with writing difficulties, who have been shown to edit their work more effectively and produce text of a higher quality of which they can be proud (Clifford and Howe, 1998).

1.16 Background to the study and the changing context

The following three chapters detail the methodology, the pilot and main studies and the process of data collection. This took place between 1993 and 1996. Since September 1998 then there has been a shift in literacy practices in British classrooms following the introduction of the National Literacy Strategy. Although the data will be discussed in relation to the context in which writing occurred, its implications will be considered in relation to the National Literacy Strategy and other legislative initiatives.

1.17 The Research Context

This study sought to improve understanding about learning to write at home and learning to write at school, and to identify influences on pupil progress. The research aims that were formulated are presented below:

- To study the relationship between home variables and writing development in pre-school children.

- To obtain measures of writing and related skills on school entry.

- To conduct an analysis of the areas of continuity and discontinuity between variables at home and at school, and influences on subsequent writing development

These research aims were used as a basis for the development of more specific research questions, and these have been introduced in this chapter and located within the context of the wider literature. The next chapter will present the research methodology that was formulated to investigate the research questions, listed below:

Question 1. *What is the relationship between pre-school variables and writing at school entry?*

Question 2. *What is the relationship between pre-school variables and writing at outcome?*

Question 3. *What is the relationship between child characteristics and writing at outcome?*

Question 4. *What is the relationship between writing at school entry and writing at outcome?*

Question 5. *What is the relationship between school variables and writing at outcome?*

CHAPTER 2

METHODOLOGY

2.1 Introduction

On the basis of the review of the literature and research aims, a series of research questions were formulated and these are listed below:

Question 1. *What is the relationship between pre-school variables and writing at school entry?*

Question 2. *What is the relationship between pre-school variables and writing at outcome?*

Question 3. *What is the relationship between child characteristics and writing at outcome?*

Question 4. *What is the relationship between writing at school entry and writing at outcome?*

Question 5. *What is the relationship between school variables and writing at outcome?*

The methodological decisions about the most effective means of collecting data to address these questions will be discussed in this chapter.

2.2 The Research Approach

The debates surrounding the philosophical roots, strengths and weaknesses of the two main research paradigms are summarised in the literature (see, for example, Cohen and Manion, 1994; Stevenson and Cooper, 1997). The positivist paradigm (also called the objectivist or

normative approach) makes use of a hypothetico-deductive scientific framework to investigate phenomena. Alternatively, constructivist research paradigms (also referred to as naturalistic, interpretive, subjectivist or anti-positivist) are based on the inductive premise that knowledge is socially constructed and that there are no absolute 'truths'.

Researchers in the positivist tradition generally favour quantitative methods, as they are primarily concerned with

"... generating quantifiable data on large numbers of people who are known to be representative of a wider population in order to test theories or hypotheses...used by many practitioners as a means of capturing many of the ingredients of a science."

(Bryman, 1988, p. 11)

In this paradigm, data must be objective and value-free, and the reliability and validity of constructs are of central importance. The manipulation, testing, replication and generalisation of data derived from a representative sample are undertaken in the search for objective knowledge and laws. Cohen and Manion (1994) summarise criticisms of quantitative methods, centring their arguments around difficulties with the rather broad notion of positivism and the problems of applying a research approach derived from the study of natural sciences to social sciences. Frequently, social science research studies involve the examination of concepts or clusters of concepts that are relatively poorly defined and abstract, and may not be derived from a theory. The indicators of the concepts being studied are usually measurements derived from questionnaires and structured observations. Such survey methods are aimed at establishing associations and correlations between variables and the ability of the researcher to establish causality (a central aim of positivism) is extremely limited (Davis, 1985). Furthermore, it is argued that quantitative methods fail adequately to take into account the differences between people in its search for group trends (Silverman, 1993).

In contrast, qualitative research avoids the use of statistical procedures and focuses on the individual nature of experiences (the social reality), often from the perspective of those being studied. Cohen and Manion explain that qualitative methods

> "... favour the alternative view of social reality which stresses the importance of the subjective experience of individuals in the creation of the social world, [and] the search for understanding focuses upon different issues and approaches them in different ways. The principal concern is with an understanding of the way in which the individual creates, modifies and interprets the world in which he or she finds himself or herself."

> (Cohen and Manion, 1994, p. 8)

Qualitative research methods are derived from a range of perspectives and underlying philosophical roots (e.g. phenomenology, symbolic interactionism) and the aim is to understand events and behaviour from within the context in which they occur. Qualitative researchers tend to view their research methods as essentially exploratory and a means of formulating and testing theories and concepts whilst engaged in the process of data collection. They reject the use of theories formulated prior to data collection contending that this can constrain and restrict the researcher, and may not mesh with the perspectives and experiences of those under study. Hence as the theory generated is embedded in the data, it is argued that it is more likely to be relevant and link with practical implications. However, in many instances qualitative research leads to the generation of categories rather than theory as such, and in some cases the research report takes the form of an impressionistic, idiosyncratic narrative account, with little evidence of category or theory generation.

The interpretation of data in qualitative research can present problems. As Ball (1984) notes:

> "Access to a world of fleeting, overlapping, contradictory, murky, incoherent realities demands selective attention from the fieldworker. For everything that is noticed a multitude of other things go unseen, for everything that is written down a multitude of other things are

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forgotten. Great parts of the real world experienced by the participant observer, probably

the greater part, are selected out."

(Ball, 1984, p. 78)

Qualitative researchers need to employ reflexivity, defined as:

"... the conscious and deliberate linking of the social process of engagement in the field

with the technical process of data collection and the decisions that this linking involves."

(Ball, 1993, p. 33)

Hence, issues need to be considered such as whether the researcher has influenced the

responses or behaviour of those they are studying and whether they have suspended

theoretical reflection during data collection. Philips (1993) challenges the notion that

qualitative research has ontological objectivity, i.e. that the data reflects reality. Eisner

(1993) discusses this issue and concludes that a degree of subjectivity is bound to influence

data collection and interpretation and that objectivity is an "unrealisable ideal". However,

he argues that it is important for individuals to have shared understandings and frames of

reference to communicate and within these shared frameworks common ground and

understanding can be established.

Cronbach (1984) argued that results of qualitative research are not generalisable, and that

they may be idiosyncratic and not representative of the population from which they are

drawn. However, Schofield (1993) stated that although results obtained from qualitative

research cannot be extended to provide general 'laws', they can be used to inform other

similar situations and to contemplate similarities and differences between them.

Furthermore, although each individual in each situation is idiosyncratic, certain situations

will be more "typical" and have more in common with other similar situations, which

should increase understanding of the area being studied.

Guba (1985) argues that the utilisation of differing epistemological frameworks and

divergent paradigms renders a combination of qualitative and quantitative research

approaches incompatible. Alternatively, Reichardt and Cook (1979) discuss the advantages of a rapprochement between qualitative and quantitative traditions, highlighting the mutual benefits of using them in combination. Hammersley (1992) argues that it is not helpful to draw a sharp distinction between qualitative and quantitative methods and puts forward the view that the objectives and context of research should dictate the choice of approaches, a position supported by other researchers (e.g. Bullock, Little and Millham, 1992; Qureshi, 1992). Henwood and Nicolson (1995) argue that the distinction between quantitative and qualitative research paradigms is useful in psychology

> "... because it links issues of research practice and method with wider epistemological questions, as well as with the social and political dimensions of scientific inquiry. This has been a productive strategy in other human and social science disciplines, leading to a greater diversity of approaches and methods together with a critical awareness of their relative strengths and weaknesses."

> (Henwood and Nicolson, 1995, p. 109)

2.3 The Present Study

Hence, although quantitative and qualitative methods are distinctive, their usefulness in addressing the research questions and the different practical advantages that they afford were not considered to be mutually exclusive, and so a decision was made to employ a combined approach in this study. The aim of the qualitative element of the research design was to gain an understanding of the experience of engaging in the writing process from an individual perspective and to provide "interpretive" data to inform the "normative" data. An additional benefit of integrating the two approaches is that it offers the opportunity for 'methodological triangulation' (Denzin, 1970), i.e. using an interaction of methods of data collection to investigate an aspect of behaviour. Consistent data from a range of sources should lead to greater confidence in the validity of the results and their interpretation.

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2.3.1 Longitudinal vs. Cross-sectional Studies

Longitudinal designs involve gathering data on the same participants at different points in time. Cross-sectional methods involve gathering data from different age groups at the same point in time and producing a 'snapshot'. Previous research has looked at writing development using both longitudinal designs (e.g. Snow et al., 1991; Tizard et al., 1988) and cross-sectional analyses (e.g. Clay, 1975; Graves, 1983, Bereiter and Scardamalia, 1980, 1981, 1982, 1985, 1987).

Cross-sectional methods have the advantage of producing a large body of data quickly. However, a cross-sectional study does not allow individuals to be tracked over a period of time, but does enable the comparison of data across age cohorts. Hence, they are less suitable for developmental studies, or when attempting to establish trends or causal relationships between variables.

Longitudinal studies are able to track the developmental trajectories of individuals over time, and can reveal differences both within and between groups. However, they are problematic for the following reasons: they are more expensive, the data collection takes longer, and they are prone to the loss of participants over time. This attrition may affect the representativeness of the sample. Furthermore, 'control' or measurement effects can occur as a result of the influence of repeated observations or interviews on participants (Cohen and Manion, 1994).

In contrast, cross-sectional studies do not suffer from these difficulties, but present different problems. As individuals are not followed up over time, data cannot be used at all easily to look for causal influences. Groups at different age levels need to be matched as closely as possible in order to ensure that any differences in dependent variables are due to the independent variables. In reality, it is difficult to control for all factors, to be sure that groups are well matched and that the different participants at each age level are comparable.

Longitudinal research is more naturalistic and less rigorous than experimental methods because less control is exerted over the experimental variables. However, the aim of this project was to collect data that reflected the reality of children's experiences of learning to write, as well as addressing questions of causal influence, and this information was felt to be most accessible through a longitudinal design.

2.4 Development of Measures

Data were collected using a range of methods. These included semi-structured interviews, questionnaires, observations, checklists and a set of tests selected for individual pupil assessment. Issues of reliability and validity were taken into account when selecting data collection instruments. Reliability can be defined as the consistency with which a test measures i.e. the proportion of the test variance not due to error. Errors that can occur in test measurement can be due to intrinsic factors (e.g. flaws in test items, ambiguities in scoring systems), or extrinsic factors (e.g. variability between testers, fluctuations in performance or disposition of those being tested). Hence, reliability is a measure of how well test results can be replicated. Administering a test at two points in time and examining the correlation between the results is the procedure used to obtain test-retest reliability statistics. Alternate form reliability is obtained by correlating the results obtained after the administration of two parallel forms of the same test. These two reliability estimates assess error due to extrinsic and intrinsic factors. Split-half reliability offers a measure of a test's internal consistency (i.e. intrinsic factors) and is obtained by scoring the odd and even item results separately and examining the between-halves correlation. Because error due to extrinsic factors is diminished, split-half reliability statistics tend to be higher than test-retest and alternate form reliability. This, combined with the fact that reliability statistics can be calculated after test administration on a single occasion mean that split-half reliabilities are frequently cited in test manuals.

Validity is the degree to which a test measures what it is intended to measure and

"... the soundness and relevance of a proposed interpretation of scores."

<div align="right">(Cronbach, 1984, p. 125)</div>

A test cannot be valid if it is unreliable, i.e. when a dimension that is predicted to be stable is being measured, any variation leading to unreliability must come from another source (e.g. noise, some other labile factor etc.). Hence, an unreliable test is not a valid measure of the intended dimension. Also, reliable scores may not be valid i.e. the test may not be measuring what it claims to measure. Three types of validity are commonly reported in the literature. Content validity (or face validity) refers to whether the test items are representative of the domain of knowledge or ability the test purports to measure and how accurate a reflection the test behaviour is of the skill or ability as it occurs in daily life. Construct validity relates to whether the construct under scrutiny is actually measured by the instrument purporting to measure it. Concurrent or predictive validity is a measure of the relationship between the test scores and other criteria (sometimes referred to as criterion-related validity).

Issues pertaining to reliability and validity will be addressed in relation to individual measures.

2.4.1 Interviews

Parents of all pupils involved in the study were interviewed at home, before they started school, by the researcher. The purpose was to collect data to address the first two research questions:

Question 1. *What is the relationship between pre-school variables and writing at school entry?*

Question 2. *What is the relationship between pre-school variables and writing at*

outcome?

The format of the interview was semi-structured, with a pre-determined set of questions

being asked according to a standardised protocol.

Brenner (1981) argues that standardisation in interviews is crucial:

> "In order to ensure adequacy of measurement in the data collection programme it is of
>
> primary importance to secure, as much as possible, the equivalence of the stimulus
>
> conditions in the interviews. If these are not equivalent, measurement may be biased, and it
>
> may be unwarranted to group responses together for the purposes of statistical analyses."

(Brenner, 1981, p. 115)

Hence, the rationale for selecting a semi-structured interview schedule was to ensure

greater consistency between interviews, and to improve the reliability of the data.

Responses were recorded in the spaces provided on the record form (see Appendix A).

Some of the questions were closed and some were open-ended. Questions were asked in

the same order, and interviewees were given no direct feedback about their responses.

However, the following probes were used if necessary:

1. Request for more information

2. Provision of examples.

Responses to the open-ended questions were summarised to ease recording and check for

accuracy, although it is acknowledged that this may have resulted in some bias due to the

possibility of selective reduction.

A disadvantage of interviewing relates to the effects of interviewer subjectivity and bias.

Bias as a result of the interpersonal nature of the interaction means that variation in trust,

status, control, understanding, interpretation, openness and co-operation between the

interviewer and interviewee may have influenced the responses. However, in spite of these

potential problems, Breakwell (1995) argues that data obtained from interviews is not necessarily less valid or reliable than data collected by other means. Hodges and Zeman (1993) acknowledge that although it is difficult to measure, interviews should reach equivalent standards of reliability and validity to other assessments and advocate structured interview formats and thorough interviewer training to achieve this. However, Cohen and Manion (1994) suggest that increased structure and control of the interview may improve reliability, but at the cost of validity. High levels of structure impede rapport building and interactions are likely to be stilted, detached and devoid of the spontaneity and warmth likely to elicit the fullest, best quality responses from the interviewee. For these reasons a semi-structured interview schedule was adopted as a compromise, offering some of the advantages of light structure along with the richness of openness.

2.4.2 Questionnaires

Over the course of the study parents and teachers completed a range of questionnaires in order to gather data to address the central research questions. The ones devised included:

1. Questionnaires designed to tap the attitudes of both parents and teacher with regard to children's writing (the Attitude Questionnaire - see Appendix F).

2. Teachers provided information relating to their assessments of pupils in a number of areas by completing the Teacher Questionnaire 1 (see Appendix N).

3. Teachers also filled out a questionnaire seeking information about their background, curriculum approach and emphasis (Teacher Questionnaire 2, see Appendix O).

The teacher questionnaires were designed to tap school variables and address the following research question:

Question 5. *What is the relationship between school variables and writing at outcome?*

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2.4.3 The Attitude Questionnaire

The use of an attitude questionnaire was chosen as the most efficient and effective means of gathering the data needed to address the research questions linked to the influence of teacher and parental attitudes on children's writing development. The development of this instrument is discussed in more detail in the Pilot Study chapter. It makes use of a Likert rating scale format, and taps the attitudes and opinions of individuals across a range of areas linked to the teaching and learning of writing.

The difficulties with measuring attitudes are outlined by Moser and Kalton (1971) as follows:

- Attitudes may be latent, i.e. the respondent may not have given the matter much thought and quickly formulates a position which is not necessarily representative of the latent attitude. When completing the Attitude Questionnaire individuals were required to make a rapid decision, which may not be valid.

- There may be different situations when a respondent will take a different position, because attitudes can be many sided. For example, responses to questions about the importance of spelling could differ depending on the circumstances (home or school; 5 year old or 7 year old; importance of accuracy in technical or narrative writing) and the response will reflect the one at the forefront of the respondent's thoughts at the time of completing the questionnaire.

- Attitudes may vary in their intensity - they can be held strongly or an individual may be relatively indifferent.

- Slight changes in the wording of statements may substantially alter the way they are interpreted by individuals. The pre-pilot and pilot versions of the questionnaire were developed to minimize this effect. However, concerns remain that the final version could still be susceptible to interpretative differences between individuals. Also that

the changes in wording between versions of the questionnaire may have resulted in altered perceptions of the attitude any particular item was designed to tap.

2.4.4 The Diary Record

In order to address the research questions exploring the influence of pre-school variables, and to sample the nature and frequency of writing in the term before children started school, parents were asked to keep a diary record for one week (see Appendix G). The details of this are described in the Pilot Study chapter. Breakwell (1995) defined diary techniques as:

> "Any data collection strategy which entails getting respondents to provide information linked to a temporal framework."

(Breakwell, 1995, p. 293)

Breakwell argued that diary techniques offer an efficient means of sampling data which is temporally sequenced, in a cost effective manner. However, she points out the following disadvantages:

- It is difficult for the researcher to gain control over the information, as individuals can be unreliable about recording data as specified.

- Diary records are prone to the effects of drop out, with respondents failing to keep records throughout the designated period. This is referred to as a problem of 'sample maintenance', and high levels of drop out mean that only data from a (possibly biased) sub-sample will be available by the end of the observation period.

- It may be difficult to assess the veracity or truthfulness of the data provided by the respondent.

- Diary records may be affected by 'reactance', with the act of keeping the record having a biasing effect on the data, which will be a less accurate reflection of the nature and frequency of writing behaviour at other times. Breakwell points out that reactance is very difficult to assess, as it may vary over time and influence the data in an erratic manner.

In order to minimize these difficulties, the record keeping system was simplified as much as possible. It was decided that a categorized tick list would require minimal effort on the respondent's part and would not make undue demands in terms of literacy skills.

2.4.5 Observation

Clay (1983) states:

"... to understand how children learn to write, we must go beyond the analysis of their writing samples (Clay, 1975). There is a need to observe them in the process of writing"

(Clay, 1983, p. 259)

Kroll, Kroll and Wells (1980) conducted systematic observations of writers in the act of composing, combined with a detailed examination of written products in order to identify the writing development profiles of individual children.

A decision was made to use a tried and tested observation schedule following the recommendations of Hoge (1985), who advised making use of existing standardised observational schedules, arguing that this offers a means of achieving improved reliability and validity and avoids duplication of effort. In order to collect observational data on eight target children, the observational schedule devised by Graves (1975) was used to record the writing behaviour of individual children during a writing episode. Graves considered a writing episode to consist of a prewriting, composing and postwriting phase. The observations in this study tended to sample writing during the composing phase. It was not

possible to fully adhere to Graves's protocol because sustained writing was not necessarily the teacher's objective, and the school timetable dictated the breaks that frequently cut across a writing task (e.g. for assembly, playtime etc). This reflected the reality of writing experiences for those pupils and the records provide a sample of their writing behaviour in these circumstances. Background and contextual factors were noted to add information about preparation and prewriting, as well as any post-writing observations, if available.

Observational methods have been criticised for the following reasons:

1. Lack of reliability. However, the correspondences between the running writing records and the writing product have been compared and the high rate of concurrence indicates that the record was accurate. It was not possible to check the accuracy of the behavioural observations, however, but as these were recorded whilst the observation was conducted rather than retrospectively, inaccuracy linked to reduced memory for detail on the part of the observer was minimised.

2. The observations may not be valid. However, in the case of the Graves' observational schedule behavioural observations were recorded. For example, incidence of resource use, accompanying language, teacher involvement, interruptions, proof reading and re-reading were noted, all of which are less open to interpretation and bias. Hence the observations are more likely to be reliable, although out of context they may lack validity (Wilkinson, 1995). Salvia and Ysseldyke (1991) argue that in most cases it is not possible for the observer to be blind to the purposes of the assessment, as they would need to be to reduce observer bias. The researcher was aware of this source of error and adhered closely to Graves' schedule to minimize it.

3. The writing sample obtained may not be representative. In order to check for this, teachers were asked if the observed sample was an accurate reflection of

the pupils' writing and in all cases, teachers agreed that it was. A further check was to compare the observational sample of writing with other samples in the pupils' books.

Difficulties with the generalisation of data derived through the study of a small number of cases have been outlined earlier, as has the issue of how representative such observations are. However, for this research, the case studies were selected in order to seek detailed information about conceptual and theoretical aspects of learning to write as they pertain to individuals, rather than to generalise the specific, descriptive information to the larger sample.

2.4.6 Checklists

The writing checklists were developed from information provided in 'Profiles of Development' (Webster and Webster, 1990). These were devised following consultation between teachers and educational psychologists and they attempted to sequence curriculum skills in a logical order, making reference to the National Curriculum expectations of the time. Their use provided a framework for monitoring progress in writing development over time and fulfilled a formative function that

"... effectively reflects the dynamic and fluid character of individual development."

(Webster and Webster, 1990, p. 2)

The data generated provided data to address the fifth research question: *What is the relationship between school variables and writing at outcome?*

Beck (1988) advocated the use of checklists on the following grounds:

1. The standardized format of checklists ensures that data collection is thorough and systematic.

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2. Checklists are straightforward, efficient and economical to complete.

3. The format of a checklist ensures that data about behaviours that may not occur frequently can be sought (e.g. by checking for examples of an emerging behaviour, such as the accurate spelling of irregular words).

4. Data collected is quantitative and provides information about level and rate of skill acquisition.

Limitations of checklists relate to their failure to take relevant situational or contextual features into account.

In general, the reliability and validity of commercially available checklists is acceptable. However, no such data is available for 'Profiles of Development'.

2.4.7 Writing samples

Writing samples produced by children over the course of the term were photocopied from their books. These samples of pupils' continuous writing were used to make judgements about individual development within the different components of writing, and provide data to address the research question, *What is the relationship between school variables and writing at outcome?* Difficulties with this form of data collection include the variation in terms of adult support and prompts available, and the lack of information about elements of the writing that could have been copied. Similar criticisms have been levelled at Treiman's (1993) investigation into the spelling development in young children using data from their continuous written productions. An alternative means of collecting data would have been to require children to produce writing samples under more controlled, experimental conditions. However, controlling contextual factors in this way would have produced data that may not have reflected the normal classroom conditions under which children write, and the research design would have lost its naturalistic focus.

2.5 Individual pupil assessments

The individual assessments fulfilled a summative function, providing a measure of the pupils' skills in writing and related areas at school entry, and providing data to explore the following research questions:

Question 3. *What is the relationship between child characteristics and writing at outcome?*

Question 4. *What is the relationship between writing at school entry and writing at outcome?*

In general, established and commercially available test materials were selected because they offer certain advantages. These include procedures for administration and scoring which have been standardized to enable the test to be undertaken in a variety of settings. This reduces inconsistency and subjectivity from the assessment and means that observed differences are likely to reflect real differences between children. Furthermore, information about the norms, reliability and validity of these measures and other technical information are provided in the manuals.

There is a need to ensure that children are comfortable and at ease in an assessment situation in order for their performance to provide an accurate reflection of their skills and abilities (Sommer and Sommer, 1991). Another important issue is to ensure that pupils fully comprehend any instructions. If pupils misunderstand what they are required to do they may not achieve success with a task even though they are capable of it. Assessment sessions should be of a sufficient duration to sustain pupils' attention: loss of concentration and motivation through boredom can inhibit performance. Regular changes of activities within an assessment session will also assist in maintaining interest and attention. In order to ensure distractions were minimized, testing took place in a quiet area away from the

classroom (usually the medical room, or library) and conditions were kept as constant as possible.

2.6 Standard assessment tasks (SATs)

All pupils undertook Key Stage 1 (KS1) National Curriculum standard assessment tasks (SATs) during the academic year they were seven, in first half of the summer term. These data were used as one measure of writing competence at outcome. Between 1995 and 1996 there were changes in the tests. As the first group of project children undertook their SATs in 1995 and the second group in 1996, the researcher remarked the 1995 results according to the 1996 criteria. The reliability of these were checked by the teachers, who were asked to confirm the decisions made by the researcher when reassessing the 1995 SATs writing samples. In all cases agreement was reached.

These assessments have not been without criticism, particularly in relation to difficulties with standardization in diverse classrooms with different teachers and varying stimulus conditions (Nutbrown, 1997).

2.7 Quantitative data analysis

The variables linked to the range of measures described above are summarized in Appendix Y. Multiple regression was used to explore the relationships between a single dependent (or response) variable and one or more independent (or explanatory) variables, and to examine the size of any effects. Furthermore, the use of this statistical technique makes it is possible to separate and examine the unique contribution of each independent variable on the dependent variable (Allison, 1999). The longitudinal design required data to be collected from the same observational units on more than one occasion, and hence

the variation between and within variables could be studied. Issues relating to pupils' progress and attainment could then be addressed. Plewis (1997) notes:

"The distinction between progress and attainment is an important one in educational research. Progress is a dynamic concept needing longitudinal data for its measurement, attainment is a static concept needing only cross-sectional data. It is usual to operationalise the concept of progress ... [by] looking at attainment at the second occasion conditional on attainment at the first occasion."

(Plewis, 1997, p. 24)

The details of further aspects of data analysis are described in the Quantitative Results chapter.

2.8 Qualitative data analysis

Two aspects of the data were analysed qualitatively:

1. Teachers describing their approach to teaching writing provided written statements. Examples of these are reported in the Qualitative Results chapter.

2. The observational data of individual children in the process of writing was collected to fulfill qualitative purposes utilising the coding system developed by Graves (1975). Results were categorized and discussed within this framework.

2.9 Recruitment of the Participant Group

The study design involved the identification of children before they started school, and this information was obtained from the head teachers of their prospective schools. Owing to the paucity of similar, previous research, there were no clear data available that would have given an indication of population variances for the key measures and enabled power

calculations to predict likely effect sizes, and hence the necessary sample sizes to identify statistically significant results. Thus, a decision about sample size was made on the basis of feasibility, cost and time and the need to maximize the sensitivity of the design to real effects. Four primary schools in the Reading area were selected to provide variability and to assist in the identification of significant effects. These were chosen following consultation with an English Inspector and an Advisory Teacher employed by the Local Education Authority and the schools were considered to be representative of the range of variation in the local population. Head teachers were initially approached by letter, and this was followed up by a phone call the following week. All agreed to take part in the study after discussion which included an explanation and description of the study.

The study was carried out within the Ethical Guidelines for Educational Research published by the British Educational Research Association (BERA, 1992). In order to recruit families, the researcher attended a meeting set up for new parents the term before pupils started school, and spoke briefly about the study before distributing an explanatory letter. Consent slips were attached and these were collected at the end of the meeting. Letters were posted to parents who had not attended and this was followed up by a telephone call and a home visit the following week. Ninety-four per cent of parents approached agreed to take part in the study, and the initial sample of 75 pupils was recruited from the four project schools. During the course of the project there was 20% attrition, due to participant pupils leaving their schools for a variety of reasons. No participants withdrew from the study hence no attrition bias was present. The sample had reduced to 60 pupils by the end of the study.

Descriptions of the schools from the most recent OFSTED reports are contained in Appendix I.

	Number of Pupils At Start of Study	Number of Pupils At End of Study	Attrition %
School 1	19	17	10
School 2	13	10	23
School 3	26	21	19
School 4	17	12	29
TOTAL	75	60	20

Table 2.1 - Distribution of Pupils across four Project Schools

2.10 Data collection schedule

Data collection took place between the Summer term 1993 and Summer term 1996. Table 2.3 details the schedule and the main data collection points. The pupils in the study did not all experience the same length of time in school owing to the LEA policy on school admissions (see Table 2.2). At that time, pupils started school the term following their fifth birthday, on a termly basis. Hence, a rolling recruitment programme was established with groups of pupils being recruited at three points - Summer 1993, Autumn 1993 and Summer 1994.

	Year R	Year 1	Year 2	TOTAL
Autumn Term Birthday	2 terms	3 terms	3 terms	8 terms
Spring Term Birthday	1 term	3 terms	3 terms	7 terms
Summer Term Birthday	--	3 terms	3 terms	6 terms

Table 2.2 - Length of time spent at Key Stage 1 in Berkshire Schools, according to birth date (1993 - 1996)

TABLE 2.3 – TIMETABLE

	1992-3	1993-4	1994-5	1995-6
Autumn term		School 3 Pre-school interviews and data collection School 1 Entry skills assessments School 2 Entry skills assessments	School 1 Individual observations, Writing samples, Checklist completion, Teacher Questionnaire 2 School 2 Individual observations, Writing samples, Checklist completion, Teacher Questionnaire 2 School 3 Writing samples, Checklist completion, Teacher Questionnaire 2 School 4 Writing samples, Checklist completion, Teacher Questionnaire 2	School 3 Writing samples, Checklist completion, Teacher Questionnaire 2 School 4 Writing samples, Checklist completion, Teacher Questionnaire 2
Spring term	Contacting L.E.A. Inspectors, Advisors and Headteachers of participating schools.	School 4 Pre-school interviews and data collection School 3 Entry skills assessments School 1 Teacher Questionnaire 1, Attitude questionnaires, Writing samples, Checklist completion, Teacher Questionnaire 2 School 2 Teacher Questionnaire 1, Attitude questionnaires, Writing samples, Checklist completion, Teacher Questionnaire 2	School 1 Teacher Questionnaire 1, Attitude questionnaires, Writing samples, Checklist completion School 2 Teacher Questionnaire 1, Attitude questionnaires, Writing samples, Checklist completion School 3 Teacher Questionnaire 1, Attitude questionnaires, Writing samples, Checklist completion School 4 Teacher Questionnaire 1, Attitude questionnaires, Writing samples, Checklist completion	School 3 Teacher Questionnaire 1, Attitude questionnaires, Writing samples, Checklist completion School 4 Teacher Questionnaire 1, Attitude questionnaires, Writing samples, Checklist completion
Summer term	School 1 Pre-school interviews and data collection School 2 Pre-school interviews and data collection	School 4 Entry skills assessments School 1 Writing samples, Checklist completion School 2 Writing samples, Checklist completion School 3 Teacher Questionnaire 1, Attitude questionnaires, Writing samples, Checklist completion, Teacher Questionnaire 2	School 1 Individual observations, Writing samples, Checklist completion, SATs data School 2 Individual observations, Writing samples, Checklist completion, SATs data School 3 Writing samples, Checklist completion School 4 Individual observations, Writing samples, Checklist completion	School 3 Individual observations, Writing samples, Checklist completion, SATs data School 4 Individual observations, Writing samples, Checklist completion, SATs data

CHAPTER 3

PILOT STUDY

3.1 Introduction

The previous chapter outlined the methodological considerations in the design of this study, the aims of which were:

- To study the relationship between home variables and writing development in pre-school children.

- To obtain measures of writing and related skills on school entry.

- To conduct an analysis of the areas of continuity and discontinuity between variables at home and at school, and influences on subsequent writing development.

These wider aims were linked with the following more specific research questions:

Question 1. *What is the relationship between pre-school variables and writing at school entry?*

Question 2. *What is the relationship between pre-school variables and writing at outcome?*

Question 3. *What is the relationship between child characteristics and writing at outcome?*

Question 4. *What is the relationship between writing at school entry and writing at outcome?*

Question 5. *What is the relationship between school variables and writing at outcome?*

In order to investigate these a collection of measures was selected. Those that were not commercially available or had not been used in previous research were trialled during the pilot study phase of this study. In this way, issues relating to the formulation and utility of the questionnaires and semi-structured interviews that had been devised could be addressed.

3.2 The Pilot Study Schedule

Three forms were devised for piloting during the Spring Term 1993, at a nursery and a playgroup in Reading. All the respondents were the mothers of pre-school children aged between 4 and 5 years of age, and were predominantly middle-class. The nursery intake feeds the local Roman Catholic Primary school, and the parents were all Catholics and white. The religious make up of the playgroup parents was more ecumenical, but again they were all middle-class and white. Hence, it can be seen that this sample of parents is not representative of the general population, and the demographic bias may be reflected in the results.

All except one parent requested that the interviews take place in the nursery setting. The following returns were obtained:

The Parental Questionnaire	A semi- structured interview taking up to 15 minutes to administer	9 completed
The Attitude Questionnaire	Questionnaire using a Likert format, taking up to 5 minutes to complete	38 completed
The Diary Record	Chart kept over 7 days by parents recording child's writing	5 completed

3.2.1 The Parental Questionnaire

This was developed to provide the framework for a semi-structured interview with the child's main caregiver (usually the mother). Its aim was to collect general background information about the child (SES, parental education, pre-school arrangements etc), information about writing materials available in the home, and parental views about the child's current level of writing development. There were some open questions relating to other aspects of the child's development as a writer such as motivation, interest etc. There were questions about parental recollections of their own writing experiences as children, questions about parents' writing in everyday life and expectations about their children's development as writers.

The Parental Questionnaire evolved considerably during the pre-pilot and pilot stages and the final version is displayed in Appendix A. It was straightforward to administer, and proved to be an effective instrument in eliciting qualitative information for the case study element of the main study. It was also possible to code some of the information for use in a more quantitative manner.

The initial questions sought basic information, such as address, occupation, etc. and were largely closed. The question about parental occupations was recorded and coded using the Office of Population Censuses and Surveys Standard Occupational Classification System.

In order to respond to the question about educational qualifications, parents were presented with a prompt sheet (see Appendix B) and asked to specify a pre-determined code number relating to their level of educational qualifications. Similarly, with regard to the request for information about writing materials available in the home, parents were presented with the prompt sheet and asked to identify available resources by number, which were recorded by the researcher (see Appendix C). Both these processes make assumptions about the

91

literacy competencies of the parents. Assistance was given to those who requested it, and was tactfully offered to those who appeared to be having difficulty.

The parents' responses to the open questions on the second and third pages of the schedule were recorded verbatim (as far as possible) using abbreviations. It was anticipated that a range of responses would be provided, and that these would be categorised. There are some difficulties with managing data in this manner, as the compression of information can cause some of its richness to be lost, and the coding process can force some of the data into inappropriate categories. Furthermore, categorization can cause some of the respondents' meaning to be misinterpreted. However, the advantages of managing the information in this manner were felt to outweigh the disadvantages in that a semi-structured interview enables the collection of data that is comprehensive and well organized and can be used in quantitative analyses.

Nine Parental Questionnaires were completed during the pilot study, and the categorised data is presented in Table 3.1. Response categories and codings are outlined below:

1. Child's initials

2. D.O.B. - Child's date of birth

3. Gender – M= male; F= female

4. Father's Ed. - educational qualifications as defined and coded in Appendix B.

5. Mother's Ed. - as above.

6. Materials (range) - range of writing materials available in the home, identified by number (see Appendix C for list).

7. Writing level – number of skills acquired as assessed by the parent with reference to the developmental sequence contained on page 2 of the interview schedule (range = 1-12).

8. Child's interest - whether the parent considers this to be positive (+) or negative (-).

9. Parental model - this relates to responses to question 1 on page 3 of the interview schedule, "What kind of writing does your child see you doing?" Responses have been organised into the following categories (codings in parentheses):

    - Communication (1)

    - Labelling (2)

    - Word games/puzzles (3)

    - Recording (4)

10. Parental memory - this relates to question 2 on page 3, "What are your earliest memories about being taught to write? What methods were used?" Responses have been categorised (and coded) as either

    a) skills-focused (S) or content-focused (C) and

    b) direct (D) or indirect (I)

11. Parental experience - relating to question 3 on page 3, "How did you feel about writing when you were at school? Did you have any particular problems?" Responses have been coded as positive (+) or negative (-).

12. Others' difficulties - whether any other members of the family have had significant difficulties when learning to write (question 4, page 3). Responses have been coded Y = yes or N = no.

13. Parental expectations - responses to the question "What do you expect your child to be able to do with regard to writing by the time they reach adulthood?" (question 5, page 3) have been organised into the following two categories:

- Functional (F) - specific to the job

- Vocational (V) - writing well, across a range of situations, for its own value.

1. CHILD'S INITIALS	H.E.	M.L.	C.E.	E.MCH.	L.D.	A.MCG.	A.P.	C.MCG.	J.D.
2. D.O.B.	24/7/87	20/7/88	7/7/89	18/6/88	14/8/88	6/8/89	13/10/89	21/8/88	2/7/88
3. Gender	F	M	M	F	F	F	F	F	M
4. Father's Ed.	3	2	6	6	6	6	6	3	2
5. Mother's Ed.	6	4	2	1	2	6	6	2	1
6. Materials (range)	20	15	16	15	17	19	19	14	15
7. Writing level	9	7	6	12	9	4	4	10	7
8. Child's interest	+	-	-	+	-	0	+	+	-
9. Parental models	2,4	1,2,4	4	2,4	2,4	1,2,4	2,4	1,2,3,4	4
10. Parental memory	S,D	S,D	S,D	S,D	S,D	S,D	S,D	S,D	S,D
11. Parental experience	+	+	+	+	+	+	+	-	+
12. Other's difficulties?	N	N	N	Y	Y	N	N	Y	N
13. Parental expectation	V	F	V	V	V	V	V	F	F

Table 3.1 – Coded parental responses to piloted Parental Questionnaire

3.2.2 The Attitude Questionnaire

This is an attitude survey, and an example of a quantitative research method that is descriptive in character. It was developed with the aim of measuring and assessing the attitudes of parents. A Likert format was used in order to ascertain how strongly individuals agreed or disagreed with the statements presented. It was decided to adopt a 4 point scale in a matrix format incorporating the following scale points:

Strongly agree – Agree – Disagree – Strongly disagree

It was decided not to include a central 'cannot decide' or 'don't know' category, in order to avoid central response bias and loss of data. Individuals were asked to tick the box that most closely corresponded with their view on each of the statements.

Items were developed to sample across the following conceptual dimensions:

a) Skill-focused - Content-focused

These statements were designed to assess whether the respondent favoured a curriculum emphasis that favoured a process or traditional approach to writing instruction, considered along a skill-focused – content-focused continuum.

b) Direct - Indirect

These statements were intended to tap respondents' views about styles and methods of teaching.

c) High value - Low value

These statements aimed to ascertain the extent to which parents' valued writing.

<u>d) Involved – Distanced</u>

These statements were designed to explore perceptions of parent's and school's role and responsibility in the teaching of writing.

A detailed description of the construction of the Attitude Questionnaire is provided in Appendix Z. Version 1 comprised 32 items, with 8 statements about writing relating to each of the aforementioned dimensions (see Appendix D). 38 mothers completed the questionnaire during the piloting phase and exploratory factor analysis was used to examine the relationship between items. Principal components analysis extracted 8 factors with an eigenvalue greater than one (Kaiser's criterion) using an orthogonal (varimax) rotation. However, the factor loadings were all very low, and so it was decided to discard the 12 items that did not discriminate sufficiently between respondents. Version 2 of the Attitude Questionnaire was created after 12 items were discarded. It comprised the 20 remaining statements that appeared to discriminate between the high and low attitude scores in the original subject group and it can be seen in Appendix E. Factor analysis was re-run using the data relating to these 20 statements. Eight factors emerged, but none of these explained a major part of the total variance (see Appendix Z). However, the five main factors, accounting for 56% of the variance, related directly to the conceptual categories outlined earlier. These are listed below in relation to the combined factor and conceptual groupings of statements. Items relating to the smaller, weaker factors and those that did not discriminate well were discarded. This led to the construction of Version 3, the final version of the Attitude Questionnaire. This contained 28 statements designed to sample writing related constructs across their positive and negative polarities, and it can be seen in Appendix F. Conceptual categories were redefined, taking the results of the factor analysis into account and the statements relating to each are listed below:

The role and importance of handwriting: Skills vs. content focus (Factor A)

Statement
19. Neat handwriting is not that important.
12. Neat handwriting is very important.
1. The presentation is less important than the content of writing.
22. The presentation is more important than the content of writing.
6. Teaching writing should just be left to schools.
23. Teaching writing should not just be left to schools.

Direct vs. indirect teaching approach (Factor B)

Statement
18. Spelling should be taught without learning lists.
24. Spelling should be taught by learning lists.
14. Children will learn to write just by being exposed to the appropriate experiences.
3. Children will not learn to write just by being exposed to appropriate experiences.
20. Children should learn to write without copy writing.
9. Children should learn to write by copy writing.

The role and importance of spelling: Skills vs. content focus (Factor C)

Statement
7. Correct spelling should always be insisted upon.
15. Correct spelling should not always be insisted upon.
16. Children will only produce their best writing when they stop concentrating on correct spelling.
5. Children will only produce their best writing when they concentrate on correct spelling.

Parental distance vs. parental involvement (Factor D)

Statement
10. It is unimportant for pre-school children to write.
25. It is important for pre-school children to write.
17. Teachers alone cannot teach writing.
11. Teachers alone can teach writing.
13. Parents should not be expected to show their children how to write.
28. Parents should be expected to show their children how to write.

Low importance vs. high importance (Factor E)

Statement
21. Being able to write well is extremely important.
27. Being able to write well is not that important.
4. It is not necessary for children to appreciate the purpose of writing.
26. It is necessary for children to appreciate the purpose of writing.
2. The importance of good writing is under-rated.
8. The importance of good writing is over-rated.

Further discussion about the administration of Version 3 of the Attitude Questionnaire can be seen in the next chapter, detailing its use during the main study.

Establishing the test-retest reliability of the Attitude Questionnaire

In order to ascertain whether this questionnaire was a reliable instrument, the 20 item version (Version 2) was administered again to 12 of the original group of 38 subjects two weeks later. Spearman's rank correlation coefficients were calculated in order to compare the two sets of responses and to establish the test-retest reliability. A correlation of .78 was obtained, which is acceptable.

3.2.3 The Diary Record

(see Appendix G)

The structured diary record was designed to gather specific information about the home curriculum, the types and range of writing activities undertaken and the frequency of supervised writing. The child's main caregiver, who was asked to keep the observational record for one week, completed it. A combination of time sampling and event sampling techniques was involved, with the intention that information would be generated to inform the quantitative aspects of the study. The record form comprised 2 sections:

<u>Section 1</u> - Writing activities

<u>Section 2</u> - Mechanics of writing / Skills training

The recording procedure enabled data to be gathered about the amount of time the child spent writing over seven days (quantitative information), and the range and type of writing undertaken i.e. the curriculum content.

The pilot study aimed to establish that the instructions were fully comprehensible and the record keeping requirements straightforward. Participants were informed that the purpose of the activity was to pilot the forms and that they would be asked for feedback about their usefulness. They were given comprehensive verbal instructions about how to complete the form, and these were also written at the top of the record sheet, for easy reference. The importance of accuracy was emphasised and the practicalities of completing the form were discussed. The record keeping system was devised to be as straightforward as possible, with parents required to tick a box within an identified category for each period of up to 5 minutes that the child was observed writing.

The process of piloting these forms revealed a problem in getting returns, with only 5 out

of 9 providing completed sheets at the end of the week. These drop out effects and problems with sample maintenance are a common problem with diary records and the 5 individuals who did complete the diary record are likely to represent a biased sample. The 4 individuals who failed to complete the form were asked the reasons why and whether they could identify any amendments that would have increased the likelihood of their keeping the record. In all cases individual circumstances were cited as the source of the difficulty (e.g. "I lost the form"; "I worked all week and my husband forgot") and so there was no information available that would have led to revisions. It is possible that the less disciplined, committed parents were those less likely to complete the diary record. Those parents who completed them reported that the form was straightforward and easy to keep, as long as a pencil was kept to hand, and the sheet was located near to the place where writing usually takes place.

This form would appear to have adequate face validity, as the parents who completed it all stated that it presented a fairly accurate representation of their writing week.

The results of the piloting of this form can be seen in Table 3.2 below:

INITIALS:	H.E.	C.E.	L.D.	A.P.	C.M^{C}G.
TIME (in Mins)					
Section I	5	0	10	70	25
Section II	130	10	15	70	20
RANGE					
Section I	1	0	2	4	2
Section II	4	1	2	4	1

Table 3.2 - Results of Piloted Diary Record

The descriptive data indicate that the forms discriminate between respondents. Formal, statistical analysis of reliability and validity could not be carried out.

3.3 Discussion of home curriculum measures

The Parental Questionnaire, Attitude Questionnaire and the Diary Record were designed to be used in conjunction with each other to gain a wide-ranging picture of the pre-school background and experiential factors that influence the earliest written productions. It was intended that the data obtained would assist in the development of a description of those aspects of the home environment that affect early writing (e.g. how often a child wrote, what he wrote, how motivated he was, his parents' views about writing and attitudes about its teaching etc.). Comparative information about continuity and discontinuity between attitudes to writing at home and school would become available on completion of the Attitude Questionnaire by the child's teachers. The nature of the home curriculum is likely to differ from the school curriculum, due to its informal and incidental nature. However there will be areas of continuity, and it is these that are of particular interest as they may confer certain advantages to some pupils when it comes to tackling writing at school. An example of clear continuity between the writing curriculum at home and school was noted when conducting the pilot study at the nursery. All of the parents questioned sent their children to the nursery and then on to the local Roman Catholic Primary school. The shared value systems and expectations were apparent. The approach to teaching writing could be described as formal and structured and involved such activities as tracing, copy writing, labelling pictures and writing names. This model of the curriculum was widely accepted, and the survey responses indicated that parents take this curriculum model home with them and apply it there. The model is then further reinforced when the children start school. Parents made very little mention of 'pretend' writing and its value, and their view of

the teaching of writing was focused on the secretarial aspects. Indeed, as a group, all of these children started school with competence in handwriting.

The pilot study also revealed the subjective nature of parents' views about their child's writing attainments. This is unsurprising, given that many parents only have experience of their own children and are unable, through lack of exposure and experience, to relate their child's level of skill and competency to wider norms and expectations. In order to gain a more objective measure of writing performance, it was decided to give the pre-school children in the main study a notebook in which they would be encouraged to write freely during the week that their parents kept the diary record, to provide samples of the child's spontaneous emergent/early written productions. It was also decided to use the developmental sequence outlined on page 2 of the Parental Questionnaire to gain information about level of writing development. These data could then be used to make comparisons between the parents' reports about their child's level of writing development in the term before starting school and the level observed by the researcher during their first term in school.

3.4 Teacher Questionnaires

Two questionnaires were devised to gain information from teachers about:

1. Their assessments of pupils' skills and abilities in writing and related areas (Teacher Questionnaire 1).

2. Information about teachers' backgrounds, experience, approach to teaching writing and time allocation to a range of writing activities (Teacher Questionnaire 2).

3.4.1 Teacher Questionnaire 1

This can be seen in Appendix N. Teachers were required to make judgements about whether a pupil's performance was above average, average or below average. They were informed that the term 'average' was in relation to their view of the norm for the age group across the whole population, not the norm for the school. Their judgements about performance in the following areas were sought: expressive language, receptive language, reading, writing, intelligence, teachability, concentration and enjoyment of writing, home support and teacher expectations. Six teachers at a Primary School in Caversham not involved in the main study were asked to complete questionnaires for two pupils in their class. Feedback was sought and in all cases, it was considered to be quick and straightforward to complete. Six weeks later the teachers were asked to complete the forms again for the same two pupils, and the results of the two samples compared. A Spearman's rank correlation coefficient of .98 was obtained indicating that the teacher assessment questionnaire is an adequately reliable instrument. On this basis it was decided to make use of it in the main study and request that each new teacher complete one. In this way comparisons between teacher judgements could be made and the information triangulated with other sources of data. For example, teacher assessments of the child's expressive language and intelligence could be compared with data obtained through the use of standardised tests designed to sample these constructs at school entry. This also provides information about the validity of the questionnaire.

3.4.2 Teacher Questionnaire 2

This sought to gain some general information about the teachers' backgrounds and previous experience in order to consider whether the use of particular teaching approaches and emphases were related to these factors. Teachers were also asked to 'Briefly describe

how you approach the teaching of writing (mentioning the resources you use)'. This open statement was designed to elicit qualitative data. Quantitative data was sought through the next question, which requested that teachers estimate the frequency with which certain tasks and activities were likely to be undertaken by individual children. These included work cards /workbooks, descriptive writing, story writing, 'news' writing, handwriting, spelling, making cards, labelling pictures, and writing poems and plays. The six teachers who assisted with the piloting of the teacher assessment questionnaire also completed this one. All provided very full descriptions of their approach to teaching writing and needed no additional prompts. The quantitative data relating to time spent on various writing activities discriminated between respondents. However these data were not cross validated against another measure. Teacher feedback was sought on clarity and ease of completion of the questionnaire and minor amendments made in the light of these. The final version can be seen in Appendix O.

3.5 Summary of lessons learned from the Pilot Study

The purpose of pilot testing the instruments described in this chapter was to assess their utility in providing relevant data to address the research questions. It was considered important to define concepts and develop indicators to measure these before beginning the process of data collection, and where possible, to assess their validity and reliability prior to conducting the main study. The exercise provided opportunities to explore the practicalities of questionnaire design and administration, and a first foray into data collection and analysis. Factor analyses of the first two versions of the Attitude Questionnaire revealed the need to refine concepts further, and to discard items that did not prove useful. It was possible to make modifications to this measure through the process of piloting, in order to make the most sense of the data, both conceptually and practically.

The importance of maintaining flexibility during the development of research instruments

was made by de Vaus (1985):

> "The crucial point is that although we must develop indicators before collecting data there
>
> is still flexibility in which ones are used and in how the concepts are finally defined. The
>
> development and use of both concepts and indicators is a process: it begins before data
>
> collection and continues during analysis. It is often not till we write up the research and try
>
> to make sense of the results that we find out how we should have done it."

<div align="right">(de Vaus, 1985, p. 58)</div>

3.6 Research Timetable for the Main Study

On the basis of the pilot study and other methodological and statistical considerations the

timetable for the main study was drawn up. 75 children due to start school in September

1993 were selected from 4 Reading Primary Schools. The project schools varied in terms

of the social and ethnic mix of their intakes and descriptions provided in their most recent

OFSTED reports are provided in Appendix I.

It was decided to conduct initial parental interviews of pupils due to start school in

September 1993 during the preceding term and school summer holidays. Subsequent

assessments and data collection points followed on from this according to a standard

format.

CHAPTER 4

MAIN STUDY

The aims of the study remained unaltered at the end of the pilot phase of the study. These were

- To study the relationship between home variables and writing development in pre-school children.

- To obtain measures of writing and related skills on school entry.

- To conduct an analysis of the areas of continuity and discontinuity between variables at home and at school, and influences on subsequent writing development.

This chapter will outline the data collection schedule during the main study and discussion will center on the detail of the instruments used and the practicalities of the process.

It was decided to use the term pre-school variables to cover the range of home background variables (e.g. parental educational level, occupation etc.), home curriculum information and data relating to other pre-school factors (childcare arrangements, nursery attendance etc.). The research questions remained as follows:

Question 1. *What is the relationship between pre-school variables and writing at school entry?*

Question 2. *What is the relationship between pre-school variables and writing at outcome?*

Question 3. *What is the relationship between child characteristics and writing at outcome?*

Question 4. *What is the relationship between writing at school entry and writing at outcome?*

Question 5. *What is the relationship between school variables and writing at outcome?*

These questions guided the structure of the Main Study. The model below illustrates the distinct phases of the research and locates groups of variables within it:

PRE-SCHOOL	ENTRY	SCHOOL	OUTCOME

Home background
Home curriculum
Parent characteristics and experiences

Literacy skills, including writing

CURRICULUM CONTENT & ORGANISATION
Frequency- Range - Emphasis

Teacher attitudes

WRITING LEVEL
Time 1 ——▸ Time 2

Parent attitudes

Child characteristics

Teacher Assessments

SATs
Checklist
Writing samples
Teacher assessments

Main Groups of Variables and Their Relationships

4.1 Pre-school variables

To address **Question 1 —** *'What is the relationship between pre-school variables and writing at school entry?'* and **Question 2 —** *'What is the relationship between pre-school variables and writing at outcome?'* it was necessary to collect data during the period before children started school. The methods and instruments used to do this are outlined below.

4.1.1 Parental interviews

Arrangements were made to visit parents at home to conduct the parental interviews. In general, these were conducted during the day, and the mother was interviewed. However, some parents requested that the visits should be carried out in the evenings either to fit around working arrangements, or because both parents wished to be present. In one case, the child's maternal grandparents were the prime caregivers and had been from birth, so they responded to the parental questionnaires in place of the parents who both worked full-time and were not available.

Parents were seen at home on two occasions. The first visit took between 30 and 45 minutes. The second visit was of shorter duration, one week later.

<u>Visit 1</u>

1. Parents were asked the questions on the Parental Questionnaire and their responses written down in full by the researcher.

2. Parents completed the Attitude Questionnaire either by ticking appropriate boxes or requesting assistance from the researcher to read and complete the questionnaire on their behalf.

3. Parents were asked to keep a record of their child's writing behaviour over the next 7 days. The procedure for recording data on the Diary Record Form was explained in detail.

4. An exercise book was left for the children to fill as they pleased over the forthcoming week.

5. A time to return one week later was arranged.

<u>Visit 2</u>

The main purpose of the second visit was to collect the exercise book containing the child's written productions and the Diary Record, and to thank the parents for their co-operation.

4.1.2 Attitude Questionnaire

This was constructed to sample the attitudes of parents and teachers with regard to early writing development. It is an example of a quantitative research method that is descriptive in character, and it was developed with the aim of exploring whether there is a relationship between a particular set of attitudes and the performance and motivation of children. The Likert rating scale required parents to state how strongly they agreed or disagreed with a series of statements which sampled their views and expectations about their child's writing development. The final version of the Attitude Questionnaire comprised 28 statements designed to sample 14 writing related constructs across their positive and negative polarities.

For example, statements 6 and 23 aimed to assess how parents viewed their responsibility in relation to that of schools, and the construct was named

- Responsibility - school or home

  6. Teaching writing should just be left to schools

  23. Teaching writing should not just be left to schools

In order to ascertain the emphasis parents considered necessary to give to the development of certain secretarial skills, statements 5 and 16 were presented under the following construct heading:

- Spelling – importance

5. Children will only produce their best writing when they concentrate on

correct spelling

16. Children will only produce their best writing when they stop concentrating on

correct spelling

The remaining items are presented in Appendix Z and the final version of the Attitude

questionnaire can be seen in Appendix F.

It was anticipated that if a parent has a clearly defined position on a particular issue they

would agree with the statement in one direction and disagree with its converse. If a parent

agreed with a positive statement (e.g. 'Correct spelling should always be insisted upon')

and then also agreed with the opposite one (e.g. 'Correct spelling should not always be

insisted upon') their responses would be considered inconsistent and would be classed as

such.

Principal components analysis was used and 6 factors were extracted using Kaiser's

criterion (eigenvalue greater than one) and orthogonal (varimax) rotation. The six factors

accounted for 65% of the variance. The statements from the attitude questionnaire that

loaded most strongly on each factor are listed below:

Factor 1

Descriptor - **Shared home/school responsibility**

Statement	Weightings
Parents should be expected to show their children how to write	.70
It is important for pre-school children to write	.63
It is necessary for children to appreciate the purpose of writing	.74
Teaching writing should not just be left to schools	.64

Factor 2

Descriptor - **Correct spelling is not necessary at all times**

Statement	Weightings
Correct spelling should not always be insisted upon	.81
Children will only produce their best writing when they stop concentrating on correct spelling	.53
Spelling should be taught without learning lists	.64

Factor 3

Descriptor - **Presentation focus - writing well is not that important**

Statement	Weightings
The presentation is more important than the content of writing	.71
Being able to write well is not that important	.77

Factor 4

Descriptor - **Teacher's sole responsibility - over-rated**

Statement	Weightings
Teachers alone can teach writing	.51
The importance of good writing is over-rated	.76

Factor 5

Descriptor - **Neat handwriting unimportant**

Statement	Weightings
Neat handwriting is not that important	.85

Factor 6

Descriptor - **Developmental/experiential approach**

Statement	Weightings
Children should learn to write without copy writing	.53
Children will learn to write just by being exposed to appropriate experiences	.83

It was planned to enter individual statements and factor scores into the regression analysis to ascertain if there was an association between parental and teacher attitudes and children's writing at 5 and 7 years.

4.2 Variables at school entry

Pupils were seen individually during the first half of their first term in school in order to conduct the entry skills assessments. Schools were asked to provide a quiet area away from the child's classroom in order to limit distractions. Two of the schools released the medical room, one provided a store room and one allowed the library to be used.

Measures used at this stage were designed to address the following research questions:

Question 3. *What is the relationship between child characteristics and writing at outcome?*

Question 4. *What is the relationship between writing at school entry and writing at outcome?*

4.2.1 Child characteristics

The following instruments were used to collect data relating to individual child characteristics:

The British Picture Vocabulary Scale – BPVS (Dunn, Dunn and Wheton, 1982)

The BPVS is a test of receptive (hearing) vocabulary in standard English, designed for individual administration, and providing norm-referenced scores. There are two forms, the long form and the short form, and the latter was selected because of increased speed of administration. The test was devised for children from three years of age, and they are required to point to a picture from a set of four, one of which illustrates the target word which is orally presented. A basal level is established and testing is carried out until the pupil makes the requisite number of errors (the 'ceiling'). Hence the pupils 'critical range' is sampled, and the results can be compared with a national standardisation sample for interpretative purposes. Data from the manual indicates the BPVS is reliable, and the authors obtained split-half correlations of .79 for the short form for pupils aged between 5.0 and 5.11 years. No data was available on the concurrent or predictive validity of the BPVS. However, there is evidence of content and construct validity, and the BPVS correlates well with other similar measures such as the Peabody Picture Vocabulary Test - Revised (PPVT, Dunn & Dunn, 1981), the vocabulary subtests of the Wechsler series of tests and the British Ability Scales (Dunn, Dunn, Whetton & Burley, 1997).

<u>The Wechsler Pre-school and Primary Scale of Intelligence - Revised (WPPSI-R)</u>

<u>(Wechsler, 1990)</u>

The vocabulary subtest of the WPPSI-R was selected as a measure of the child's expressive language and knowledge of vocabulary. The test is divided into two sections. In the first part, children are presented with a picture of a cat, a tree and a key and asked to name them. Thereafter, they are orally presented with a word and asked to provide a definition. Responses are scored according to the quality of the response, following general criteria defined in the manual (p. 79). So, for example, one of the items requires the children to provide a definition for the word 'hat' ('What is a HAT?'). The response 'wear it on your head' would achieve a 2 point score, 'you wear it' would score 1, and an irrelevant response such as 'black hat' would not score.

Norm-referenced scores can be computed from total raw scores, and the test was standardised on British pupils between the ages of 3 and 7 years, so it was suitable for the group of children involved in the study.

The reliability estimate of the vocabulary subtest for 5 year old pupils is high ($r = 0.85$). The coefficient was computed by the split-half procedure corrected by the Spearman-Brown formula. Data provided in the manual also indicates that the WPPSI-R has adequate concurrent validity as it correlates well with other measures of general intelligence.

As a predictor of academic success, vocabulary has been shown to be one of the more accurate measures (Dunn, Dunn, Whetton & Burley, 1997). For this reason, vocabulary subtests are central components to most psychometric test batteries (Elliott, 1983).

<u>The British Ability Scales (B.A.S.) Verbal Fluency Subtest (Elliott, Murray and Pearson, 1983)</u>

This is one of a group of subtests considered to measure 'Retrieval and Application of Knowledge'. This subtest was designed for children aged from 3 ½ years, and comprises six items organised into three groups as follows:

1.   The child has to name as many: a) things to eat, and b) animals, as possible in 30 seconds. One point is awarded for each correct item named.

2.   Two ambiguous drawings are presented to the child who is required to speculate about what they might be. Each 'distinct idea' (p. 177, Manual 3) is awarded one point.

3.   Children are asked to discuss the consequences of two unlikely events. The first question asks 'What do you think might happen if everyone had to go about on their hands instead of their legs?', and the second, 'What do you think might happen if there were no schools?' Each appropriate and distinct response is awarded one point, and these are totaled and then transformed into a score on a scale of between 1 and 4.

This subtest may tap creative thinking in addition to verbal fluency. It is also likely to be influenced by child personality factors such as introversion/extroversion and be sensitive to anxiety and the rapport established between researcher and child (Elliott, 1983a). Hence, care was taken to ensure that the child was relaxed, comfortable and at ease during testing.

The reliability coefficient of the verbal fluency subtest for 5 ½ year old children is .83, calculated using the Hoyt formula for internal consistency. The technical handbook quotes data from small scale studies which indicates that the BAS correlates well with other cognitive measures such as the Wechsler group of tests (Elliott, 1983b).

4.2.2 Other writing and related skills assessed at school entry

<u>Concepts about Print Test</u>

This was devised by Clay (1979) and is one of the battery of measures incorporated into the Diagnostic Survey devised for the early detection of reading difficulties. Included in this test are the items designed to test the child's:

- knowledge of the front from the back of a book

- understanding that print carries a message

- familiarity with print directionality

- understanding the difference between letters and words

- knowledge of punctuation and capitalisation

The two parallel books linked to the test and written by Clay (Sand, 1972b, Stones, 1979a) were used. These contain distorted text (incorporating inverted print, page reversal, words sequenced incorrectly, letters re-ordered within a word) and are devised to assess whether children can identify and explain the errors.

It is possible for pupils who undertake this test to achieve a maximum score of 24, and the raw score can be converted into a norm-referenced stanine score. These scores were derived from a population of children in New Zealand in the early 1970s, and norms and expectations in Great Britain in the 1990s have changed (Nutbrown, 1997). Hence, only the raw scores were utilised for the quantitative analysis.

Clay argues that the most important function of this test relates to its diagnostic utility. It was intended that the results of individual pupil's performance would inform the case studies reported in the qualitative chapter.

Clay presents data indicating that the Concepts about Print Test is a reliable measure and quotes a reliability co-efficient of 0.95 (Kuder-Richardson) obtained on a sample of 40 urban children aged between 5.0 and 7.0 years in 1968. Furthermore, test - re-test reliability estimates of between 0.73 and 0.89 were obtained on a sample of 56 kindergarten children in Texas in 1978 with corrected split-half coefficients of between 0.84 and 0.88. Data is provided as evidence of the validity of the measure, and the correlation with Word Reading at 6.0 years is estimated to be 0.79 (Clay, 1979).

Goodman (1981) however, disputes the generalisability of these reliability and validity statistics, and argues that the 'Sand' and 'Stones' books are unattractive and irrelevant to today's children. Although these shortcomings are acknowledged, the decision was taken to retain the subtest in the entry skills battery because of its widespread use and the unique insights it offers into children's early understanding and experience of print.

Letter Identification

Fifty-four letters (upper and lower case and two versions of a and g) were presented to children on cards in order to assess how many they could identify.

The score sheet provided in Clay's (1979) Diagnostic Survey was used to record the child's responses and one point was awarded for each letter correctly identified. Hence pupils could achieve a maximum score of 54, and Clay provides tables that enable this to be converted into a stanine score. It is likely that these norms may no longer be valid and hence it was considered more relevant for the raw score to be used in the quantitative analysis.

Test of Writing Vocabulary

Children were asked to write their name, and a score between 0 and 5 awarded according to the criteria outlined in Appendix L. Pupils were then asked to write down any other words known to them, and each word written down correctly obtained a score of 1. As with letter identification, this raw data was used in the quantitative analysis as the stanine norms were outdated and based on a population not representative of the one in this study.

Copying Phrase

The phrase 'on the ground' was printed on a strip of card, and pupils were asked to copy this onto a blank sheet of paper presented in landscape orientation. A score was awarded between 0 and 5. Pupils who refused to write or produced a scribble scored 0, and a 5 was awarded if all letters were appropriately and evenly spaced, correctly formed and ordered, and upper and lower case letters differentiated. The detailed scoring criteria for this task are presented in Appendix K.

British Ability Scales (BAS) Copying Subtest

This subtest is one of a selection of subtests designed to tap 'Perceptual Matching'. Elliott (1983) argues that

> "... the copying of designs appears to require both the ability to perceive similarities
> between a standard figure and the figure which is being drawn, together with some motor
> ability. Poor performance may, of course, be a function of poor experience or opportunity
> in doing copying tasks at home and school, or it may indicate the poor development of
> perceptual matching skills or poor motor control."

(Elliott, 1983a, p. 43)

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Children are required to copy a series of simple figures (such as a circle, a vertical line, a diamond), some letters that are commonly reversed (b/ d/ p/ j) and some more complex geometric designs. These can be scored according to detailed criteria and the total scores can be compared to national norms. The basal point of the scale is 3 ½ years, and the sub-test is designed for children up to the age of eight. Hence, it is appropriate for use with the group of children involved in the study.

The internal consistency of the copying sub-test using the Hoyt formula is quoted at .80 (Elliott, 1983b, p. 106). This reliability co-efficient is for 5 ½ year old children and is acceptable. The BAS would appear to be an adequately valid instrument (see earlier section on verbal fluency subtest).

Dictated Story Task

This task was designed to assess how well children could structure their oral productions, and gain some insight into whether they were aware of the distinctions between oral and written language. More specifically, information was sought to question whether children who dictate and re-read stories which are more detailed and complex at school entry, write better quality stories at age seven. The task was derived from instruments developed for the purposes of research and described in detail in the literature (Sulzby, 1985; Menig-Peterson & McCabe, 1978).

Pupils were required to dictate a narrative and re-read it. A content analysis score and a re-reading score were computed from the pupils' efforts. Sulzby designed the original story dictation task, and her substantial piloting resulted in refined directions, which were adopted with a few modifications. Sulzby's task required children to construct a story 'about how you learned to ride a big wheel' (bicycle). It was decided that this may have

not been a universal experience for the Reading school children in this study, so the task was amended to dictating a 'story about something that happened at play-time'.

The researcher wrote the children's dictated narratives down in large print and they were then presented with the text and asked to re-read it. Responses were scored according to Sulzby's 'Emergent Reading Ability Judgements Scale' which is presented in Appendix M under the section heading Scoring - Re-reading Dictation. Sulzby quotes inter-rater agreements of 96% when using this scoring scale, and because of its high reliability it was adopted without amendment. Content analysis of the dictated text was undertaken using the scoring system devised by Menig-Peterson & McCabe (1985) to analyse children's narratives. Their rationale is quoted below:

> "To fully orient a listener, a narrative must answer the questions of who the participants were, where the events occurred, what props were involved, when the events took place, how - that is, the sequence of actions that constituted the events - and why the events occurred... It is possible to approach each narrative produced by the children as a unified entity and to evaluate how adequately the narrative as a whole answers each of the six questions above. Thus, this approach evaluates the completeness of the child's contextual embedding."

> (Menig-Peterson and McCabe, 1985, p. 584)

For the purposes of this study only four elements were scored; who, where, what and how. It was not considered relevant to look for details of 'when', as most children were likely to talk of events that had occurred at the most recent play-time and did not need to place events temporally. The why dimension requires a consideration of causation, and was not scored, as the subject matter did not necessarily suggest reporting of causal relationships between events and could disadvantage those children whose subject matter did not automatically lead to reporting of a causal sequences. The remaining four elements of the scoring system were adopted unadapted (see Appendix M - completeness of context analysis).

Sulzby (1985) reports Stein & Glenn's (1981) classification system for children's narratives that they refer to as 'story grammar', accepting that some narratives may be more usefully classified as reactive sequences and may not be in the story genre. Eight different levels of story classification are described (see Appendix M) and marks of 1-8 were awarded to pupils according to the level achieved. Hence, a child whose dictated story was classified as an action sequence (level 3) would score 3.

Sulzby reports 96% agreement between two raters who made story grammar classification level judgements about 24 samples. Hence, the scoring criteria would appear to be clear and explicit, and so were used in an unadapted form.

4.3 School variables

In order to address research **Question 5** – '*What is the relationship between school variables and writing at outcome?*' a range of data was collected during the child's time at Key Stage 1.

4.3.1 Writing samples

Writing samples produced by children were photocopied from their books once a term. These samples of pupils' continuous writing were used to make judgements about individual development within the different components of writing (handwriting, spelling, punctuation, meaning, form, vocabulary, structure and organisation). They were scored according to criteria based on the notion of a developmental continuum, linked to National curriculum objectives (see Appendix W). A second rater scored the first 20 (out of 60) using these criteria, to ascertain the level of agreement between scores. It was decided to use Cohen's kappa to compute this, as it is a widely recommended index of agreement

between two or more judges for categorical data (Cohen, 1960). These data are reported in Appendix X.

4.3.2 Checklists

The checklist includes two definitions that can be applied to observed skills. Emerging skills are considered to be those that are demonstrated occasionally, in particular settings or when scaffolding is provided. Mastered skills are well established and demonstrated reliably across settings and circumstances. Checklist records were updated once a term, by making reference to the full range of writing in pupils' books. The researcher made judgements about the child's level of writing by examining all available written productions. If a skill appeared to be emerging (e.g. capitalisation and full stops occasionally appearing in their writing) the date this was observed was recorded on the appropriate section of the checklist. Similarly when there was consistent evidence of mastery, the date was noted.

4.3.3 Questionnaires completed by teachers

- Teacher Questionnaire 1

Each new teacher was asked to complete this teacher assessment questionnaire (described in the previous chapter and shown in Appendix N). After school entry, this was done at the start of a new academic year when the child moved class.

- Teacher Questionnaire 2

Likewise, all the pupils' teachers provided information about their approach to teaching writing and proportion of time devoted to various activities (see previous chapter and Appendix O).

- <u>Attitude questionnaire</u>

Each of the child's teachers completed the attitude questionnaire.

Collection of Teacher Questionnaires

Requests for completion of questionnaires were spread over the course of the year in order to avoid making too many demands on teachers at once. The timetable for questionnaire completion can be seen in Table 2.3 on page 88. Stamped addressed envelopes were left with a key member of staff who agreed to collect completed questionnaires from colleagues and return them. If this failed to happen, a telephone reminder was made. If this was not successful, the school was visited at an agreed time and date to collect completed questionnaires. A 100% rate of return was achieved.

4.3.4 Observation

Teachers at each of the four schools were asked to provide one example of a pupil they considered to be typical of an 'above average' writer and one example of a 'below average' writer - one male and one female. In this way a total of eight pupils were selected from the quantitative sample for more detailed, qualitative study. The aim was to obtain information that would 'flesh out' and enhance the understanding of the quantitative data.

As noted in the Methodology chapter, Graves' (1975) observation schedule was used to record information about pupils in the process of writing (see Appendix T). All eight target pupils worked in classrooms where they were required to sit around tables in groups in order to complete their work. Observations were made seated near to the pupil, but not at the same table, to try and minimise the observer's influence on the social interactions. It was important for the observation position to allow viewing of the child's writing as well

as the accompanying behaviours, and to be near enough to hear the language. The duration of the observation varied according to the class schedule, and the mean observation period was 24 minutes with a range of between 5 and 35 minutes (see Appendix V).

A record was kept of background factors and other relevant contextual information as well as a detailed log of the pupils' writing, utterances, interactions with other pupils and teachers, interruptions (solicited or not), rereading, proof reading and resource use. Detailed transcripts are shown in Appendix U and quantification of this information can be seen in Appendix V.

CHAPTER 5

DATA ANALYSIS AND RESULTS

| PRE-SCHOOL | ENTRY | SCHOOL | OUTCOME |

Main Groups of Variables and Their Relationships
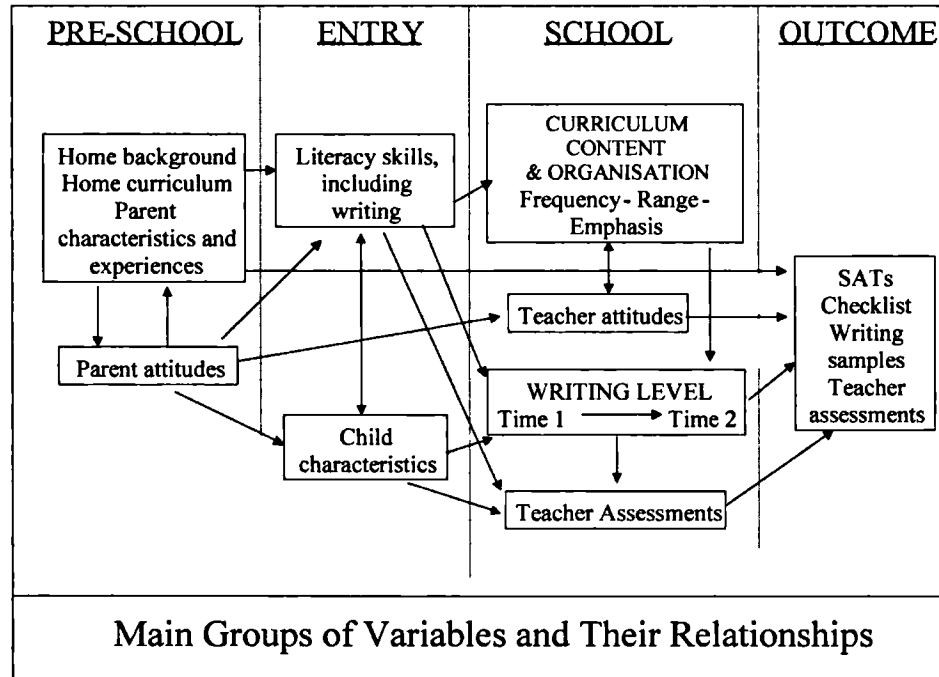
This study was concerned with identifying the effects of factors at home and at school on

children's attainment and progress in writing at Key Stage 1. These factors were organised

into four main groups, which were time ordered to reflect the longitudinal design of the

study. First of all there were the pre-school factors. These included home background

variables such as mother's educational level, paternal occupation, family size, parental

attitudes etc. The second group were skills at school entry or the child's developmental

level i.e. the profile of skills and competencies that each child brought with them to school

such as pre-reading skills, copying ability and fluency in story telling. The influence of

child characteristics such as gender, season of birth, language and cognitive ability were

also considered at this stage. Third, school and teacher influences were examined e.g. the

curriculum and teacher assessments and expectations. Finally, pupils' attainments at the

end of Key Stage 1 were measured and these data were used as an outcome measure.

This chapter is divided into three main sections. The first of these presents descriptive data on each variable within these four main groups and examines the relationships among variables within sets. The second section looks at changes that have occurred over time and compares data collected at school entry with data collected at the end of Key Stage 1. The third section covers the main data analysis and the results of using linear regression to explore which variables predict writing attainment at school entry and at 7 years of age.

5.1 Descriptive Information

5.1.1 Pre-school variables

Home background variables

Table 5.1 summarises the first set of descriptive data relating to the home background variables:

VARIABLE NAME	CATEGORIES	FREQUENCY	PERCENT
Maternal educational qualifications	No qualifications	18	30
	Up to 'O' level	35	58
	Up to degree level	7	12
Maternal occupation	Full-time employment	11	18
	Part-time employment	15	25
	Housewife	34	57
Family size	1 child	7	12
	2 children	31	52
	More than 2 children	22	37
Family position	1st child	24	40
	2nd child	23	38
	3rd child	9	15
	4th child	4	7
Paternal occupation	Semi and unskilled manual	10	17
	Intermediate & junior non-manual/skilled manual	29	48
	Professional/ employers & managers	18	30
	Missing	3	5
Paternal educational qualifications	No qualifications	29	48
	Up to 'O' level	23	38
	Up to degree level	8	13
Paternal employment status	Unemployed	12	20
	Employed	47	78
	Missing	1	2
Number of terms attended pre-school	3 terms or less	41	68
	More than 3 terms	19	32
Type of pre-school	Playgroup	6	10
	Nursery	53	88
	None	1	2
Other child-care arrangements	None	44	73
	Some	16	27

Table 5.1 – Descriptive data relating to home background variables

It can be seen that with regard to maternal educational qualifications, only 12% of the sample were qualified above 'O' level standard, indicating an under-representation of more highly qualified mothers. Similarly, of the fathers of children in the study, nearly half (48%) had no educational qualifications at all, and just 13% had qualifications above 'O' level standard. 20% of the fathers in the study were unemployed, a high proportion for the Reading area which at that time had an unemployment rate of 6.6%. Over half of the mothers in the study (57%) were not in paid employment and described themselves as housewives. The mean number of children in the families in the study was 2.25, the majority (52%) living in families of 2 children. This is above the average of 1.9 dependent children per family (Office for National Statistics, 1992).

Home curriculum

The data in this section summarise information obtained from the parents in the term before the children in the study started school. The home writing activities variable was derived from the record of writing activities kept over a seven day period by the parents. Data was provided under the following categories:

1 - Number of 5 minute periods devoted to writing activities over 7 days

2 - Number of 5 minute periods devoted to writing skills training over 7 days

3 - Number of different activities undertaken

4 - Number of different skills training exercises undertaken

These data were initially coded into the four variables listed above and Table 5.2 shows the high intercorrelations among them:

	1	2	3	4
1	1.000	.709	.975	.669
2	.709	1.000	.728	.976
3	.975	.728	1.000	.708
4	.669	.976	.708	1.000

Table 5.2 - Spearman's rank correlation coefficients among four categories of data relating to home writing activities

The correlations were all highly significant ($p<.01$). Hence, these variables were summed and the distribution of the derived variable examined. The sample was split fairly evenly into two groups – those parents who kept a record of their children's writing during the preceding week, and those who did not. Hence, a new dichotomous variable, called home writing, was created to reflect this information, and this demonstrated an acceptable level of internal consistency (Cronbach's Alpha = .69).

VARIABLE NAME	CATEGORIES	FREQUENCY	PERCENT
Home writing activities	None	27	45
	Some	33	55
Number of materials	Low	12	20
	Middle	28	47
	High	20	33
Parental assessment of child's writing ability	Low	16	27
	Middle	24	40
	High	20	33
Parent writing - models & expectations	Low	34	57
	Middle	17	28
	High	9	15
Read to parents	No	37	62
	Yes	23	38

Table 5.3 – Descriptive data relating to home curriculum and parent views

All households had some writing materials, and although these ranged from 1 to 20 items, most families had a good selection of equipment, with the mean number of items being 13. For the purposes of analysis these were categorised into 3 groups – low, middle and high. Most parents assessed their child's writing ability as average or above average (a total of 73% in the 'middle' and 'high' categories). The Parent writing – models and expectations variable was created by adding together two correlated variables which included information about the nature of writing models parents provided, and their expectations for their child's development as a writer ($r = .409$, p < .01). The internal consistency of this combined variable as measured by Cronbach's Alpha was .56, indicating that the overlap between the variables was not large. However, there is evidence that Cronbach's Alpha provides a lower bound of the true reliability (Dunn, 1989). Moreover, because of the conceptual basis for the combination i.e. that the parents who provided the most frequent, communicative models of writing were more likely to expect their children to enjoy

writing for its own sake (i.e. in a vocational sense) and those who provided infrequent models were more likely to expect their children to write for functional purposes, it was decided to proceed. Only a small percentage (15%) of parents wrote in a sustained manner and had high expectations for their children. Some parents experienced literacy difficulties and were tactfully offered the opportunity to have the questionnaires read to them. 38% of the parents accepted this offer, and this would appear to indicate that a relatively high proportion of parents had insufficient confidence in their own literacy abilities to read themselves.

Child Characteristics

This group of variables represents individual child attributes or within-child characteristics. It can be seen that the sample of children in the study was equally split by gender, and that the largest proportion had their birthdays during the summer term, a possible educational disadvantage. Their standardised scores on the WPPSI-R vocabulary subtest ranged from 5 to 15, with a mean score of 9.5, which is slightly lower than the national norm of 10 (Wechsler, 1990). The standard deviation was 2 for this sample, which is lower than a standard deviation of around 3 reported in the test statistics. Raw scores were translated into percentiles for the two language assessments, and the mean scores for both (BPVS – 43.8 and BAS verbal fluency – 30.4) are below the expected mean percentile score of 50. Overall, this suggests the sample of children studied have poorer language skills than we would expect to find in the British population as a whole.

VARIABLE NAME	CATEGORIES	FREQUENCY	PERCENT
Gender	Male	30	50
	Female	30	50
Season of birth	Autumn	21	35
	Spring	15	25
	Summer	24	40
VARIABLE NAME	RANGE OF SCORES OBTAINED	MEAN	STANDARD DEVIATION
WPPSI-R vocabulary	5 - 15	9.5	2.0
BPVS receptive vocabulary (percentile score)	5 - 94	43.8	26.8
BAS verbal fluency (percentile score)	1 - 79	30.4	25

Table 5.4 – Child characteristics

These variables were not combined further because even though the correlations between the language measures were modest (between .4 and .5), this only indicates shared variance of between 16% and 25%. Hence the language measures each sample distinct aspects of language processing and ability and could have a differential impact on the process of writing. Hence, on conceptual grounds, a decision was made to enter these variables into the regression individually.

5.1.2 Literacy skills at school entry, including writing

A range of assessments was carried out at school entry. Spearman's rank correlations were calculated to compare interrelationships among the tasks. The concepts about print and letter identification tests were highly correlated ($r= .69$, $p < .01$), so scores on these two tests were summed to create a new variable called Pre-reading skills. Internal consistency

of this variable was low (Cronbach's Alpha = .39). It is recognised that Alpha is better

utilised when there are more than two items in the scale, and that a score of .39 indicates

that the overlap between the variables is lower than is desirable. However, it was decided

to proceed, given the conceptual justification for the combination i.e. that both variables

are tapping important, underpinning literacy skills. Similarly, the total completeness of

context score and story grammar classification level on the story dictation task were highly

correlated (see Table 5.6) so these were added together to create a single dictated story

score, a variable with internal consistency of .5 (measured by Cronbach's Alpha). Once

more it was decided to maintain the combined variable on the grounds that the contributing

variables are both tapping the same concept – oracy and story telling abilities.

Spearman's rank correlation coefficients and significance levels

	Completeness of context – who?	Completeness of context – where?	Completeness of context – what?	Completeness of context – how?	Total completeness of context score
Completeness of context – who?	1.000	.229 n.s.	.109 n.s.	.021 n.s.	.494 p<.01
Completeness of context – where?	.229 n.s.	1.000	.385 p<.01	.145 n.s.	.711 p<.01
Completeness of context – what?	.109 n.s.	.385 p<.01	1.000	.653 p<.01	.760 p<.01
Completeness of context – how?	.021 n.s.	.145 n.s.	.653 p<.01	1.000	.609 p<.01
Total completeness of context score	.494 p<.01	.711 p<.01	.760 p<.01	.609 p<.01	1.000

Key: n.s.= non-significant

Table 5.5 – Completeness of context score correlation matrix

	Dictated story re-reading score	Total completeness of context score	Story grammar classification level
Dictated story re-reading score	1.000	.074 n.s.	.197 n.s.
Total completeness of context score	.074 n.s.	1.000	.597 p<.01
Story grammar classification level	.197 n.s.	.597 p<.01	1.000

Key: n.s.= non-significant

Table 5.6 - Dictated story score correlation matrix

The descriptive data suggest that most children in the study could only write between one and two words when they started school (mode = 1; median = 1.5), and that one of these words was likely to be their name (70% of children in the study were able to do this accurately). A total of 68% of the sample were proficient at copying and obtained scores defined in the middle or high categories for their copied model of the phrase 'on the ground'. To achieve this their production needed to include all letters correct, recognisable and in the correct order (see Appendix K for more detail of scoring criteria). However, the mean percentile score on the BAS copying test was 42, once more below the standardisation sample mean of 50 and a further indication of negatively skewed data.

VARIABLE NAME	RANGE OF SCORES OBTAINED	MEAN	STANDARD DEVIATION
Pre-reading skills	1 - 70	32.5	19.3
Dictated story score	1-12	6.2	2.4
BAS copying test (percentile score)	4 - 95	42	26.2
Writing vocabulary (number of words child could write)	0 - 9	2.2	1.9

VARIABLE NAME	CATEGORIES	FREQUENCY	PERCENT
Copying phrase	Low score	19	32
	Middle score	28	47
	High score	13	22
Write name	0 = No response/ scribble	2	3
	1 = Letters attempted	3	5
	2 = Random letters	2	3
	3 = Most letters	4	7
	4 = All letters – reversals/exchanges	7	12
	5 = Written correctly	42	70

Table 5.7 - Entry skills assessments

5.1.3 School variables

Once children started school, information was collected about a range of influences that could affect progress and these descriptive data will now be examined. Although data were collected continuously during the pupils' time in Key Stage 1, for the purposes of analysis the focus will be on two points in time:

- Time 1 – data collected during the child's first term in school, when aged 5 years.

- Time 2 – data from the child's final year in school. Teacher assessment information was collected during the autumn term in Year 2 and judgements about the child's writing levels were based on writing samples provided in the final term. Most children were 7 years old at this point.

Child variables at entry (Time 1)

Teacher assessments

In order to gain information about the teachers' perceptions of their pupil's skills and abilities, they were asked to provide assessment information on each child by completing a questionnaire. They were asked to provide a rating for each child under the categories outlined in Table 5.8:

VARIABLE NAME	CATEGORIES	FREQUENCY	PERCENT
Expressive language	Below average	15	25
	Average	41	68
	Above average	4	7
Receptive language	Below average	13	22
	Average	43	72
	Above average	4	7
Reading	Below average	26	43
	Average	31	52
	Above average	3	5
Writing	Below average	26	43
	Average	33	55
	Above average	1	2
Intelligence	Below average	15	25
	Average	41	68
	Above average	4	7
Teachability in writing	Below average	23	38
	Average	36	60
	Above average	1	2
Concentration on writing tasks	Below average	19	32
	Average	38	63
	Above average	3	5
Enjoyment of writing	Below average	12	20
	Average	45	75
	Above average	3	5
Support from child's home	Below average	15	25
	Average	33	55
	Above average	12	20
Expectations from future writing development	Below average	17	28
	Average	38	64
	Above average	5	8

Table 5.8 – Teacher assessments at Time 1

Spearman's rank correlations among these teacher assessment variables ranged between .3 and .9. Receptive and expressive language achieved a correlation of .9, and reading and writing were correlated at .8. Much weaker correlations of .3 were demonstrated between expressive language and enjoyment of writing, and between the child's teachability and their enjoyment of writing. However, all correlations achieved statistical significance at the p<.05 level, and many at the p<.01 level. It was decided to combine three of these teacher assessments variables: the child's ability to concentrate on a writing task, their enjoyment of writing and how 'teachable' the child was considered to be with regard to writing. The grounds for doing this were that there appear to be conceptual links between them, with all three tapping a single latent variable - the child's attitude to writing. The significant intercorrelations between them provided further justification for the combination. These are shown in Table 5.9 below:

	Concentration	Enjoyment	Teachability
Concentration	1.0	.49	.53
Enjoyment	.49	1.0	.33
Teachability	.53	.33	1.0

Table 5.9 - Spearman's rank correlation coefficients

Hence, these three variables were added together into a new variable called Writing Attitude (Time 1). The Cronbach's Alpha of .71 indicates that there is good internal consistency.

Assessment of child's writing at Time 1

As has been outlined in the Methodology chapter, writing samples were collected each term during the study. They were scored by two independent judges, and the inter-rater reliability was measured using Cohen's kappa (see Appendix X for the data and a detailed description). Descriptive statistics are shown in Table 5.10, which includes data relating to varied aspects of writing, such as handwriting, meaning and vocabulary. Since the scoring criteria were based on the notion of a developmental continuum it is possible to see that at 5 years of age most children have begun to develop skills in some aspects of writing, but not in others (for details of scoring criteria, see Appendix W). For example, in areas such as vocabulary and organisation no children achieved the following baseline criteria:

Vocabulary – 1. 'The vocabulary is appropriate to the subject matter, with some words used effectively'.

At this stage the vocabulary in children's written productions was basic and functional (e.g. 'I go to my Nan's'), and so did not achieve a score.

Organisation – 1. 'Individual ideas are developed in short sections'.

Likewise, at school entry, there were no pupils who produced writing that was sufficiently extended to score on this baseline criterion.

However, many more children were successful in achieving scores in handwriting, with 90% of the sample scoring on the first two criteria:

Handwriting – 1. 'Some control over the size, shape and orientation of the writing'.

2. 'Letters are usually clearly shaped and correctly orientated'.

VARIABLE NAME	VALUES (see Appendix W for definitions)	FREQUENCY	PERCENT
Handwriting	0	3	5
	1	30	50
	2	24	40
	3	3	5
Spelling	0	34	57
	1	26	43
Punctuation	0	59	98
	1	1	2
Meaning	1	39	65
	2	21	35
Form	0	58	97
	1	2	3
Vocabulary	0	60	100
Structure	0	41	68
	1	19	32
Organisation	0	60	100

Table 5.10 – Writing sample scores (Time 1)

Individual sets of scores were summed to create a baseline total score for each child.

Individual pupils' total scores ranged between 1 and 8, with a mean score of between 3 and

4. This indicates that in their first term in school the children in this study demonstrated

wide variation in their competence in writing.

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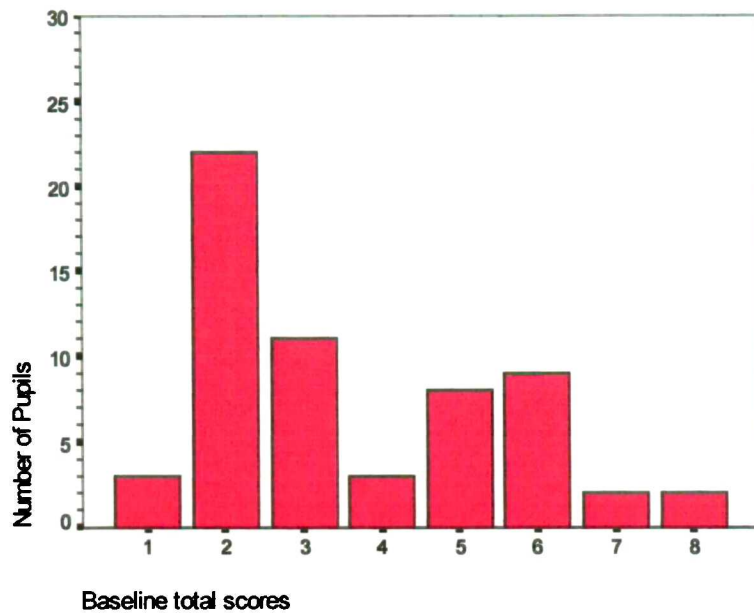
Figure 5.1 *– Distribution of writing sample baseline total scores (Time 1)*

Assessment of child's progress with writing checklist

Each term a checklist was updated for each child (see Appendix P), recording specific aspects of writing progress and the date this was first observed. Initial data collected during the first term in school indicated that the initial checklist scores obtained by pupils ranged between 8 and 20, with a mean score of 14.
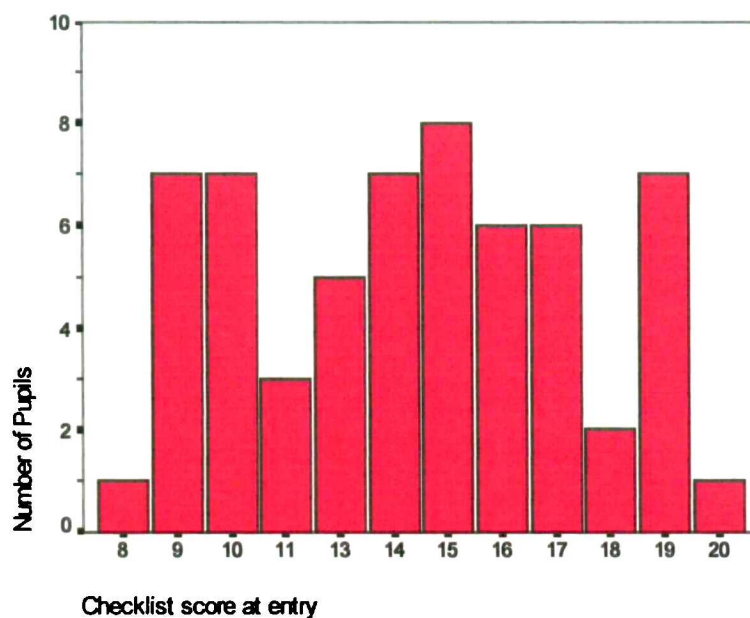
Figure 5.2 *– Distribution of checklist scores at school entry (Time 1)*

Child Variables at Outcome (Time 2)

Data were collected during the child's final year in KS1 when most were aged 7 in order for comparisons to be made with the parallel data obtained at Time 1.

Teacher assessments

Teacher assessment information was collected during the first term of Year 2 and an analysis of responses giving teachers' views about their pupils are provided in Table 5.11. Comparisons between teacher assessments at Time 1 and Time 2 reveal that a higher proportion of children were judged to be above average at the second data collection point. For example, at Time 2, 23% of pupils were considered by their teachers to be above average readers, whereas at school entry only 5% were. Similarly, 18% of pupils at Time 2 were considered to have above average expressive language compared to 7% at Time 1. The only area where the distribution of teacher assessments remained stable was in their evaluation of the level of support from children's homes.

VARIABLE NAME	CATEGORIES	FREQUENCY	PERCENT
Expressive language	Below average	14	23
	Average	35	58
	Above average	11	18
Receptive language	Below average	14	23
	Average	33	55
	Above average	13	22
Reading	Below average	19	32
	Average	27	45
	Above average	14	23
Writing	Below average	26	43
	Average	27	45
	Above average	7	12
Intelligence	Below average	7	12
	Average	45	75
	Above average	8	13
Teachability in writing	Below average	20	33
	Average	28	47
	Above average	12	20
Concentration on writing tasks	Below average	16	27
	Average	29	48
	Above average	15	25
Enjoyment of writing	Below average	17	28
	Average	33	55
	Above average	10	17
Support from child's home	Below average	13	22
	Average	34	57
	Above average	13	22
Expectations from future writing development	Below average	9	15
	Average	41	68
	Above average	10	17

Table 5.11 – Teacher assessments at Time 2

As with the Time 1 data, Spearman's rank correlations between the teacher assessment variables were statistically significant (p<.05) between all the teacher assessments, with correlations ranging between .3 (teachability and enjoyment of writing) and .9 (intelligence and expectations for the child's future development as a writer). Similarly, the three variables derived from the teachers' assessments of the child's ability to concentrate on writing, their enjoyment and how teachable they were considered to be, were combined on the basis that they are all tapping the same latent variable – the child's attitude to writing. Another reason for repeating the combination was to ensure consistency, treating data from Time 1 and Time 2 in the same way.

	Concentration	Enjoyment	Teachability
Concentration	1.0	.70	.77
Enjoyment	.70	1.0	.58
Teachability	.77	.58	1.0

Table 5.12 - Spearman's rank correlation coefficients

These were summed to create a new variable called Writing Attitude (Time 2). The Cronbach's Alpha of .86 indicates good internal consistency.

Assessment of child's writing at Time 2

Writing samples produced during the summer term of Year 2 were analysed and coded according to the scoring criteria in Appendix W. It can be seen that the ranges of scores achieved have extended since Time 1.

VARIABLE NAME	VALUES (see Appendix W for definitions)	FREQUENCY	PERCENT
Handwriting	2	5	8
	3	25	42
	4	25	42
	5	3	5
	6	2	3
Spelling	1	26	43
	2	28	47
	3	6	10
Punctuation	0	11	18
	1	22	37
	2	22	37
	3	5	8
Meaning	2	3	5
	3	52	87
	4	5	8
Form	0	8	13
	1	37	62
	2	14	23
	3	1	2
Vocabulary	0	22	37
	1	34	57
	2	4	7
Structure	0	1	2
	1	47	78
	2	11	18
	3	1	2
Organisation	0	10	.7
	1	36	60
	2	14	23

Table 5.13 – Writing sample scores (Time 2)

Once more, individual scores across each of the above areas were summed to create an

outcome total score for each child. Scores ranged between 5 and 23, with a mean of 14.

These data were used as the dependent variable in the regression analysis.
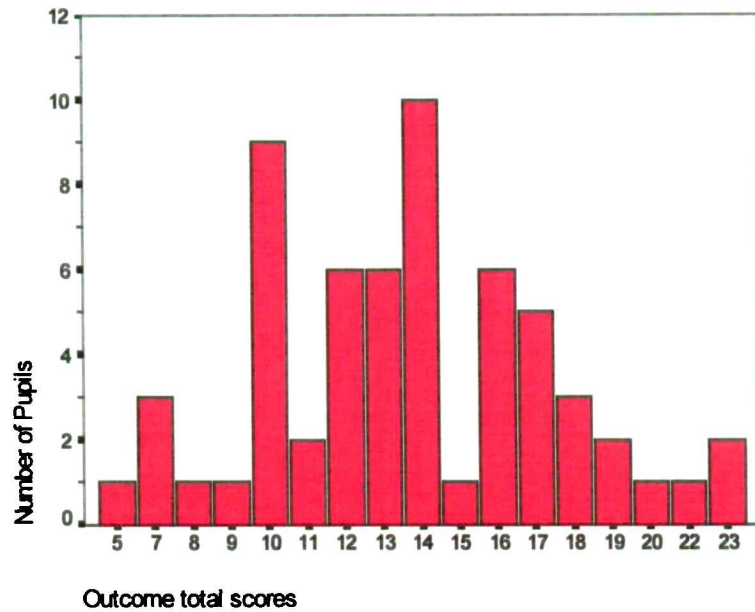
Figure 5.3 – *Distribution of writing sample outcome total scores (Time 2)*

Other outcome measures

Figure 5.4 shows the distribution of final checklist scores. Total scores ranged from 16 to

32, and the mean score was 26.
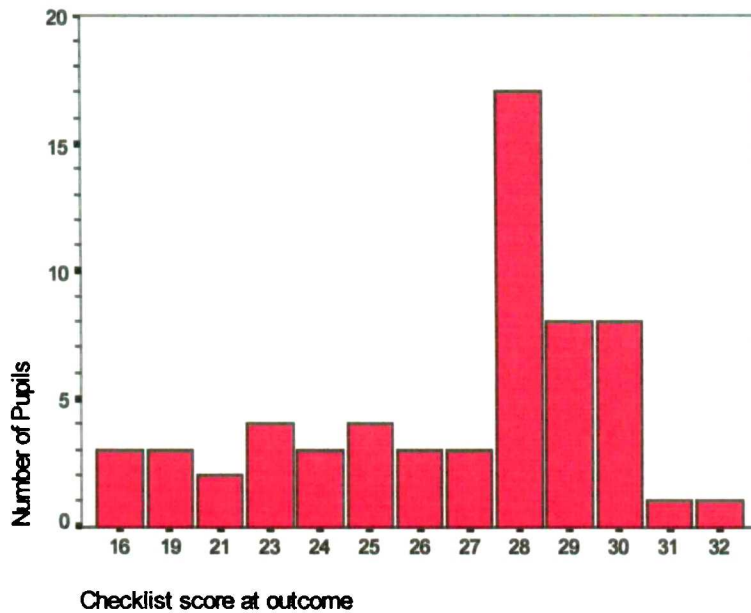
Figure 5.4 – Distribution of checklist total scores at the end of KS1 (Time 2)

Figure 5.5 shows the Key Stage 1 SATs writing assessment levels obtained by the children in the study. Comparison of these data with the Key Stage 1 1996 National Curriculum Assessment results published by the DfEE indicates that a lower proportion of children in this study (61.6%) achieved Level 2 and above in writing than pupils across the country as a whole (76%).
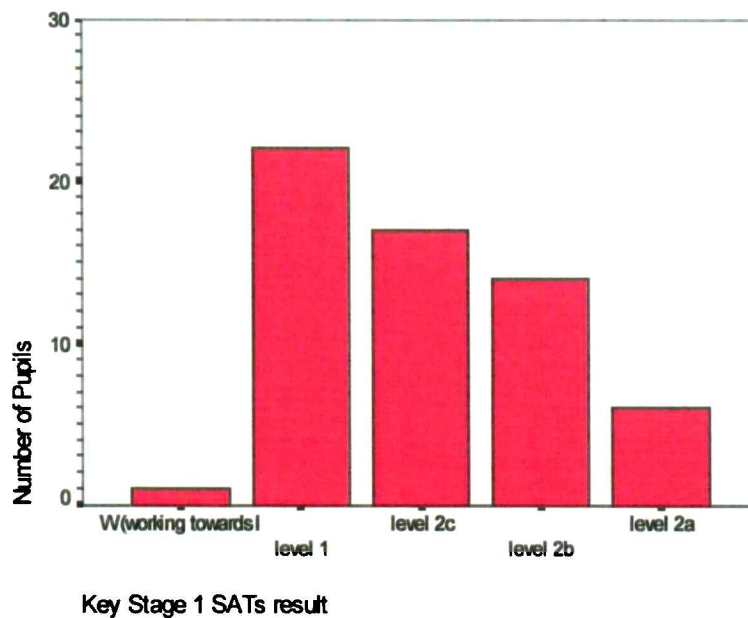
Figure 5.5 – Levels achieved in KS1 SATs writing task

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CHANGES THAT OCCURRED OVER TIME

(between Time 1 and Time 2)

As described in the Methodology and Main Study chapters, writing samples were collected once a term during the pupils' time in Key Stage 1, and the last six samples analysed. They were scored by two independent judges, and the inter-rater reliability was measured using Cohen's kappa (see Appendix X for the data and a detailed description). The writing sample data also provided information about writing attainments at Time 1 and Time 2 and comparison between these measures provided information about the progress with aspects of writing made by pupils. Table 5.14 summarises the data and shows the degree of progress made by pupils. A score of 0 indicates that no progress was made. If the pupil was judged to have moved forward by one category between Time 1 and Time 2, they would achieve a score of one. For example, the first two categories of the spelling assessment criteria were:

1. Some common words are spelt correctly, and alternatives show a reliance on phonic strategies, with some recall of visual patterns.

2. In spelling, phonetically plausible attempts reflect growing knowledge of whole word structure, together with an awareness of visual patterns and recall of letter strings.

A pupil whose writing was assessed as achieving the level defined in category 1 at both at Time 1 and at Time 2 would score 0, whereas a pupil who had progressed to category 2 by Time 2 would score 1, and so on. Hence, the progress score was calculated by subtracting the Time 1 category level from the category level achieved at Time 2. It should be noted that the categories represent an arbitrary measure of progress and the relationship

between categories is neither linear nor fixed.

	Number of categories progressed between Time 1 and Time 2				
	0	**1**	**2**	**3**	**4**
Handwriting	0	12	32	15	1
Spelling	8	31	20	1	0
Punctuation	12	21	22	5	0
Meaning	0	21	37	2	0
Form	9	37	13	1	0
Vocabulary	22	34	4	0	0
Structure	14	40	5	1	0
Organisation	10	36	14	0	0

Table 5.14 – Numbers of pupils making progress in writing sample assessments between Time 1 and Time 2

It can be seen that most pupils made progress in most aspects of writing. In some areas progress was slower (e.g. vocabulary, structure, organisation) probably because pupils had not developed the higher-level cognitive abilities necessary to fulfil the criteria. A small number of pupils failed to make progress in certain areas. For example, 8 pupils did not progress with spelling, and 12 did not demonstrate any greater knowledge of punctuation at Time 2 than Time 1. There were no pupils who scored lower at Time 2 than Time 1.

5.2 Factor analysis of writing samples

Factor analysis was used to examine the relationships between the variables, to identify the variance shared by the variables and to reduce the number of variables. Writing sample data were factor analysed by category i.e. handwriting, spelling, punctuation etc.

Factor analysis of the following aspects of writing extracted a single factor:

- Handwriting

- Spelling

- Vocabulary

- Organisation

- Form

Factor analyses of the meaning, punctuation and structure data identified 2 factors, and when these were examined, one appeared to relate to skills which emerge early in the child's time in school and the other to skills which develop later, towards the end of their time at KS1. Hence, scores from writing samples obtained at the first three data collection points loaded on to one factor, and from scores from the final three samples loaded on to the second factor. These two factors were named 'early' and 'late' and are listed on the next page:

- Meaning (early meaning and late meaning)

- Punctuation (early punctuation and late punctuation)

- Structure (early structure and late structure)

Mean scores from the data contributing to each factor were calculated, for reduction and simplification. So, for example, for aspects of writing where a single factor was extracted such as handwriting and spelling, the mean score over six terms was calculated. For the sub-skills that showed a two factor pattern, the mean score was calculated from the relevant samples e.g the first three data collection points for factors which emerged from the 'early' samples or the last three data collection points for the factors defined as 'late'. The reasons for working with the simplified version were that:

- They are easier to interpret than factor loadings

- They are more pragmatic

- They are more robust

Hence a total of 11 factors were identified, 5 single factor sub-skills, and 6 sub-skills that showed a two factor pattern. All of these were entered into a second factor analysis in order to analyse all the variation or variance (common and unique) in the individual pupils' writing scores. The first two factors that were extracted accounted for 66% of the variance and were the only two factors with an eigenvalue greater than one (Kaiser's criterion). Examination of the scree plot (Cattel, 1966) also confirmed the existence of two main factors. The first factor extracted accounted for the largest amount of shared variance (55%) and the second factor contained the next largest amount of variance not included or explained by the first factor (11%). The factors were rotated to maximize the loadings of some of the items and hence improve the interpretability of the factors. Orthogonal (varimax) rotation was used as it was assumed the factors were unrelated. Table 5.15 shows the rotated factor matrix and the loadings that indicate the amount of variance contributed by each factor. Factor loadings below .3 were omitted from consideration on the grounds that they account for less than 9% of the variance and so the contribution of the factor to the variable is unimportant (Bryman and Cramer, 1997).

	FACTOR 1	FACTOR 2
Vocabulary	.84	
Late structure	.83	
Organisation	.80	
Form	.78	.38
Late meaning	.75	
Spelling	.67	.46
Early punctuation		.83
Early meaning	.46	.69
Handwriting	.48	.66
Late punctuation	.50	.59
Early structure	.32	.58

Table 5.15 – Item loadings on orthogonally rotated factors (writing samples)

The variables that loaded most heavily on to Factor 1 were vocabulary, late structure, organisation, form, late meaning and spelling. These are all skills that emerge with maturity, and require more complex higher-order cognitive processing abilities. These cannot emerge until secretarial skills have become relatively fluent.

The factors that loaded on to Factor 2 were skills that are evident at the start of schooling, are less dependent on maturity and make fewer demands in processing terms. They include early punctuation, early meaning, handwriting and early structure.

5.3 Main analysis

The next section deals with the organisation and analysis of the data in order to develop a model of influences on writing development.

Linear regression can be used to measure the relationship between two variables separated by time. In a regression analysis, change over time is noted by using an equation in which the scores on a measure at initial testing are used to predict the values of the measure at the second time of testing. Hence, comparisons can be made, and it is possible to see whether any changes in individual scores are more or less than predicted and by how much (Plewis, 1985).

The relationship between several independent variables and a dependent variable can be explored using multiple regression. As multiple regression separates the effects of the independent variable on the dependent variable, it is possible to examine the unique contribution of each one.

As outlined earlier, the variables selected were grouped into four different areas - pre-school, entry, school and outcome variables. Dependent variables were selected at two points in time – entry and outcome. They were both continuous variables, and comprised a range of data:

- The dependent variable at entry combined information about the child's

a) concepts about print (Clay, 1979)

b) ability to identify letters

c) assessment by the British Ability Scales copying subtest

d) ability to copy the phrase 'on the ground'

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e) ability to write their name

f) number of words written unassisted

g) completeness of context in narratives

h) story grammar classification level

Descriptive data relating to these individual assessments can be seen in Section 5.1.2 (pp. 132-135). The scores were summed to create the 'Entry Writing' dependent variable.

- The dependent variable at outcome combined information about school based writing samples provided at the time of Key Stage 2 assessment. These included scores relating to handwriting, spelling, punctuation, meaning, form, vocabulary, structure and organisation.

For regression, dependent variables are assumed to be normally distributed. Many of the independent variables in this study were categorical. This required the creation of dummy variables in order to analyse the data (Kerlinger and Pedhazer, 1973). This process enables categorical information to be coded (1 or 0) and different categories of information within a variable can then be represented by each set of dummy variables. The initial variable can be reconstructed by combining the relevant dummy variables. For example, data relating to maternal occupation was organised into 3 categories:

1. Full time employment

2. Part time employment

3. Housewife

The minimum number of dummy variables required to capture the essential information in

these groups will be *k - 1* (where *k* is the number of groups) i.e. one less than the number of groups. Maternal occupation (1) involved category 1 and 3 being coded as 0 and the middle category being coded as 1. In maternal occupation (2) categories 1 and 2 were coded as 0 and category 3 as 1. Hence, the first category is treated as the reference group against which the other dummy variables in the set are compared.

Initially, variables were grouped on conceptual grounds and their relationship with the dependent variable examined using Pearson's correlation or analysis of variance. Sets of related data were analysed using the 'forced' (enter) method in which groups of variables are entered into the regression simultaneously. Alternatively the hierarchical (step-wise) method can be used, and this procedure involves the variables that account for the greatest variations being picked up in sequence. However, this method has limitations when there are dummy variables, as each dummy is treated separately and explanations need to relate to all linked dummy variables, not just one.

As well as regression, analyses of covariance (ANCOVA) were carried out on each set of variables. ANCOVA and regression analysis are computationally equivalent and the results of both are parallel. The rationale for doing this is that it was not necessary to create dummy variables for this form of analysis. If a variable was significant, a decision was made to include the entire set of dummy variables into further regression analyses (regression splits the effect). Also the process of backwards elimination was used to step through the ANCOVA regressions and non-significant variables were excluded one at a time from the model. Eventually, only significant variables remained. This informed the composition of the sets of variables put into subsequent regression models.

The regression analysis was conducted on related groups of variables to gain information about the strength of association between a group of independent variables and the dependent variable. The regression analysis gives information about the increase in the

dependent variable that would be produced by a positive increase of one unit in a particular

independent variable, if the other independent variables were held constant. All

independent variables with significant t-values at the critical level of 95% or below

associated with the dependent variable were identified at each step for inclusion in the final

equation. The main aim of this process is summed up by Cramer (1998):

> "One of the main purposes of multiple regression in the social sciences is not so much to
>
> predict the score of one variable from others but to determine the minimum number of a set
>
> of variables which is most strongly related to the criterion and to estimate the percentage of
>
> variance in the criterion explained by those variables."

(Cramer, 1998, p. 165)

5.3.1 Associations between pre-school variables and writing at school entry

Main Groups of Variables and Their Relationships
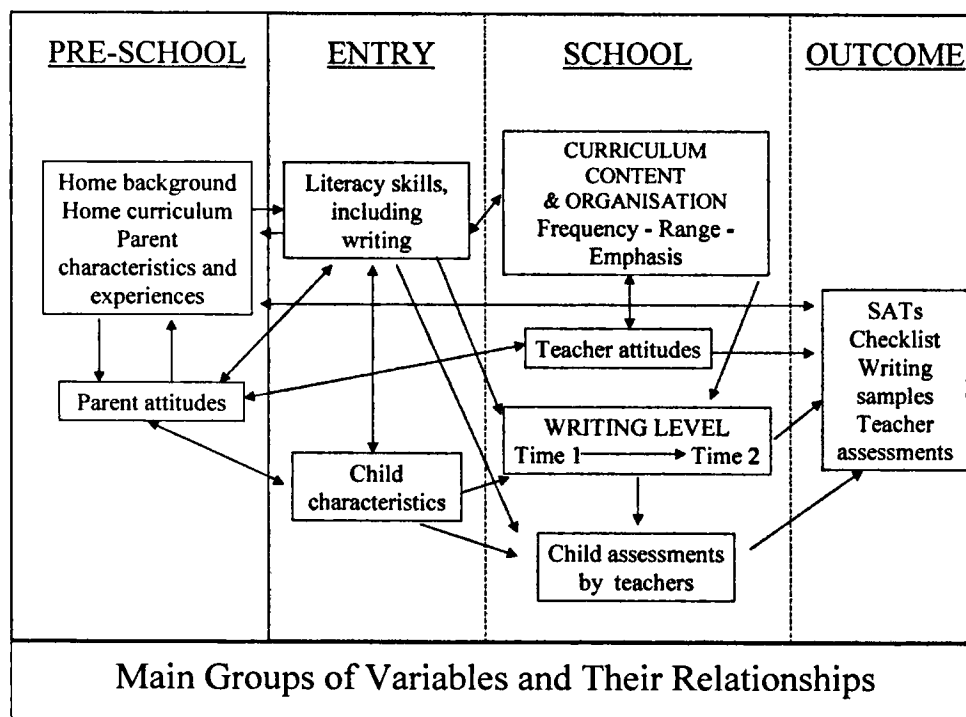
In order to gain information about factors before school that influence writing attainment at

school entry, variables were grouped conceptually and their individual relationship to the

dependent variable (either writing at school entry or outcome) considered. Pearson's

correlation was used to gain information about the relationship between continuous independent variables and the dependent variable in question. The means of groups within the categorical variables were compared using one-way analysis of variance (ANOVA) in order to test the null hypothesis that all the means are equal.

Home Background variables

The first set of variables that was analysed is listed in Table 5.16:

Variable	Categories	Mean entry score	Standard deviation	Analysis of variance
Maternal educational qualifications	No qualifications (low)	72.4	33.3	$F_{2,57}= 2.8$
	Up to 'O' level (middle)	97.3	43.1	$p<.07$
	Up to degree level (high)	108.4	51.8	
Maternal occupation	Full time employment	111.1	43.0	$F_{2,57} = 1.7$
	Part time employment	92.1	45.8	$p<.2$
	Housewife	84.2	40.4	
Family size	1 child	118.9	40.7	$F_{2,57} = 2.0$
	2 children	91.2	38.9	$p<.14$
	More than 2 children	82.2	46.5	
Paternal occupation	Semi and unskilled manual	70.7	35.7	
	Intermediate and junior non-manual	97.2	50.0	$F_{2,57} = 4.6$
	Professional/employers/managers	117.5	48.8	$p< .01$
Paternal educational qualifications	No qualifications	80.3	37.8	$F_{2,57} =4.8$
	Up to 'O' level	91.1	42.0	$p< .01$
	Up to degree level	130.1	44.1	
Paternal employment status	Unknown	84.0	-	$F_{2,57} = 3.5$
	Employed	98.4	44.5	$p<.4$
	Unemployed	63.2	21.2	

Table 5.16 – Results from ANOVA between selected home background variables and writing at school entry

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The majority of variables in this set were categorical, necessitating the creation of dummy variables. The family position variable was a count (first child, second child, third child and so on). Pearson's correlation between this and writing at school entry showed the two variables to be weakly, negatively correlated ($r = -.25$), indicating that being an elder child is weakly associated with higher attainments in writing at school entry. The initial model incorporated all of these variables, but the F value for the regression was 1.78 and was non-significant (R square = .229), indicating that the model does not explain a sufficient amount of the variance. Backwards elimination of non-significant independent variables using ANCOVA indicated that maternal educational qualifications and family size were the only two that were significantly associated with writing at school entry so the regression was re-run including just these two variables.

In order to interpret the results it is necessary to discuss the creation of dummy variables in relation to the categories.

- low = no qualifications (30% of mothers)

- middle = qualifications up to 'O' level standard (58% of mothers)

- high = qualifications above 'O' level standard (12% of mothers)

Dummy variables were created for two of the categories, and the third became the reference category. In this case the 'low' group became the reference category. One dummy variable was created for 'middle', so all mothers with qualifications up to 'O' level standard were coded 1 and all others were coded 0. The second dummy was created for the 'high' category and all mothers with qualifications above 'O' level were coded 1 and all others were coded 0.

The family size variable was also grouped into 3 categories, thus necessitating the creation of 2 dummy variables. Families with 1 child (12% of all families) became the reference

category, and the dummy variables comprised data for families with 2 children (52%) and families with more than 2 children (37%).

This time the model achieved statistical significance (F = 4.84, p<.01), and the R Square of .145 indicates that 14.5% of the variation in writing attainment at school entry can be explained by maternal educational qualifications and family size.

Table 5.17 gives the regression statistics.

Variable	Category	B	Std. Error	Beta	t	Significance
Maternal educational qualifications	Low	0	-	-	-	-
	Middle	26.6	11.7	.32	2.3	.027
	High	41.1	18.3	.31	2.3	.028
Family size	1 child	0	-	-	-	-
	2 children	-34.5	17.1	-.41	-2.0	.048
	More than 2 children	-40.9	17.6	-.46	-2.3	.023

Table 5.17 – Association of Home Background with attainment in writing at school entry

The Beta value is the standardised coefficient and this indicates how many standard deviations the dependent variable changes with an increase of one standard deviation in the independent variable. These results indicate that the mean writing scores at entry of children whose mothers had qualifications were nearly one third of a standard deviation unit higher than the mean scores of children of mothers with no qualifications. The negative Beta values for the family size dummy variables indicate that the effect is in the opposite direction i.e. that the mean entry writing scores of children in families of 2 children or more are nearly half a standard deviation lower than the scores of only children.

Pre-school arrangements associated with attainment at school entry

The independent variables in this group were based on information about children's attendance at pre-school, both in terms of time and type of provision, as well as other childcare arrangements. Data were categorical, and a one-way ANOVA was used to establish whether there was a significant difference between the means.

Variable	Categories	Mean entry score	Standard deviation	Analysis of variance
Most recent preschool facility attended	Playgroup	114.5	60.7	$F_{2,57} = 1.2$
	Nursery	89.0	40.5	$p < .32$
	None	64.9	-	
Number of terms in preschool	Up to three terms	95.5	42.1	$F_{1,58} = 1.4$
	Above three terms	81.6	43.8	$p < .25$
Other childcare arrangements	None	87.6	42.8	$F_{1,58} = .99$
	Some	100.9	42.5	$p < .40$

Table 5.18 – Results from ANOVA between selected pre-school variables and writing at school entry

It can be seen that there appear to be no significant differences between the means of the categories within any of the variables in this group. Furthermore, none of these variables showed a significant influence on writing attainment at school entry when entered into a regression analysis, and the F statistic for both the regression analysis and ANCOVA models did not reach statistical significance.

Home writing experiences associated with attainment at school entry

Variables that were initially considered as possible influences were mainly categorical and are listed in Table 5.19:

Variable	Categories	Mean entry score	Standard deviation	Analysis of variance
Home writing	None	73.1	37.6	$F_{1,58} = 10.1$
	Some	105.9	41.5	p< .002
Whether the parents requested help reading the questionnaires	No	101.3	42.9	$F_{1,58} = 10.1$
	Yes	74.7	37.9	p< .02
Parents assessment of the child's skill and motivation	Low	74.3	33.2	$F_{2,57} = 19.0$
	Middle	70.7	30.6	p< .001
	High	129.0	37.4	
Parents report of their own writing experiences at school	Negative	107.8	44.9	
	Indifferent	82.5	42.9	$F_{3,56} = 2.0$
	Fairly positive	77.6	33.9	p< .12
	Very positive	104.9	46.7	
Parents writing – models provided and expectations	Low	81.0	37.8	$F_{2,57} = 2.3$
	Middle	105.2	46.3	p< .11
	High	102.8	47.9	
Number of writing materials available at home	Low	83.6	27.7	$F_{2,57} = 1.3$
	Middle	91.1	43.9	p< .22
	High	95.7	49.3	

Table 5.19 – Results from ANOVA between selected home writing experiences and writing at school entry

There appears to be a relationship between home writing, parental help with reading and parental assessment variables and writing skills at school entry. The individual contributions of the independent variables in this set were examined using ANCOVA and the backwards elimination procedure, and those with a weak effect were excluded. The home writing and parental assessment variables were the most strongly associated with writing at entry, so the dummy variables were entered into the regression analysis. Home writing was a dichotomous variable and the reference category was 'no home writing' (coded 0) with those children whose parents had recorded on the Diary Record form that they had done some writing at home receiving a code of 1. The parent assessment variable

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had 3 categories – low, middle and high. The reference category was for parents who assessed their child's writing ability as low, those who classed it as middle scored 1 on the first dummy variable and those who assessed their child's writing as high scored 1 on the second dummy variable.

Together these variables accounted for 49% of the variance in attainment in writing at school entry and the model is statistically significant (F=17.866, p<.001).

Variable	Category	B	Std. Error	Beta	t	Significance
Home writing activities	None	0	-	-	-	-
	Some	25.7	8.2	.30	3.1	.003
Parental assessment	Low	0	-	-	-	-
	Middle	-3.6	10.1	-.04	-.35	.73
	High	50.8	10.6	.6	4.8	.001

Table 5.20 – Association of home writing experiences with attainment in writing at school entry

These data show that parents who assessed their child's writing skill and motivation as 'high' obtained mean writing scores at school entry more than half a standard deviation higher than those parents who gave their children a 'low' assessment or a 'middle' assessment. Furthermore, children whose parents recorded that they had engaged in writing activities at home during the observation week achieved mean scores at entry nearly one third of a standard deviation higher than those children who did not. Hence, the parental assessment effect appears stronger than the home writing effect.

Association between all significant pre-school variables and writing attainment at school entry

When all of the statistically significant variables from the preceding analyses were included together in a regression model, they accounted for 60% of the variance in attainment at school entry. The F value of 8.189 achieves a high level of statistical significance (p<.001).

Variable	Category	B	Std. Error	Beta	t	Significance
Maternal educational qualifications	Low	0	-	-	-	-
	Middle	13.0	9.3	.15	1.4	.168
	High	10.4	14.7	.08	.71	.483
Family size	1 child	0	-	-	-	-
	2 children	-30.7	13.3	-.36	-2.3	.026
	More than 2 children	-27.1	13.4	-.307	-2.0	.050
Home writing activities	None	0	-	-	-	-
	Some	12.6	8.8	.15	1.4	.160
Parental assessment	Low	0	-	-	-	-
	Middle	-.62	10.0	-.01	-.062	.951
	High	52.4	10.3	.58	5.1	.001

Table 5.21 – Association of significant home variables with attainment in writing at school entry.

The results show that when home factors are taken into account some of the variables that had achieved statistical significance have lost their associative power within this model. For example, the maternal educational qualifications variable is no longer significant because of its relationship with the other independent variables in the model, and in particular, parental assessment. Hence, more highly qualified mothers are likely to assess their children's writing more highly, and it is this dependency that may be as a result of other manifest and latent variables.

5.3.2 Association between pre-school variables and writing progress

The same sets of variables were regressed against a new dependent variable – outcome total scores, derived from combined information from the children's written productions collected during their final term in Key Stage 1. This information allows the consideration of factors that are related to attainment in writing at age 7 and enables questions to be considered such as which home background variables retain an effect on writing attainment after 2-3 years of schooling.

Home background variables associated with attainment at outcome

The means of the home background variables were compared using a one-way ANOVA and the results are displayed in Table 5.22:

Variable	Categories	Mean outcome score	Standard deviation	Analysis of variance
Maternal educational qualifications	No qualifications (low)	11.7	3.3	$F_{2,57} = 3.5$
	Up to 'O' level (middle)	14.6	4.1	$p < .035$
	Up to degree level (high)	14.1	2.8	
Parents assessment of child's skill and motivation	Low	13.1	4.5	$F_{2,57} = 1.5$
	Middle	13.1	3.6	$p < .24$
	High	14.9	3.7	
Home writing activities	None	11.8	2.8	$F_{1,58} = 14.2$
	Some	15.2	4.0	$p < .001$
Number of terms in pre-school	Up to three terms	13.0	2.9	$F_{1,58} = 3.8$
	Above three terms	15.1	5.3	$p < .05$
Most recent pre-school facility attended	Playgroup	16.5	4.8	$F_{2,57} = 1.8$
	Nursery	13.4	3.8	$p < .18$
	None	14.0	-	

Table 5.22 – Results from ANOVA between selected pre-school variables and writing at outcome

The results of the regression analysis indicated that together the home background variables accounted for 25.8% of the variance in attainment at outcome (F=3.762, p<.005). The only home background variable which was statistically significant was home writing activities, and it would appear that that children whose parents kept a record of their writing before they started school achieved mean writing scores more than one third of a standard deviation higher at age 7 than the children who did no writing.

Variable	B	Std. Error	Beta	t	Significance
Home writing activities	2.896	0.976	.371	2.967	.004

Table 5.23 – Association of significant home variables with attainment in writing at outcome

Association between child characteristics and attainment at outcome

The term child characteristics has been used to describe the within child variables displayed in the Table 5.24. The WPPSI-R, BPVS and BAS variables were treated as continuous variables. It can be seen that only the WPPSI-R vocabulary variable significantly correlates with writing at outcome.

Variable	Pearson's correlation with writing scores at outcome
WPPSI-R Vocabulary subtest	$r = .475, p < .01$
BPVS centile score	$r = .049$, n.s.
BAS Verbal Fluency subtest centile score	$r = .128$, n.s.

Key: n.s. = non-significant

Table 5.24 – Correlations between child characteristics and writing at 7 years

Table 5.25 shows the data relating to the categorical child characteristic variables. Gender was treated as a dichotomous dummy variable, with males being coded 0, and females 1. There were 3 categories included in the season of birth variable - autumn, spring and summer. Autumn was treated as the reference category, spring was coded as 1 in the first dummy variable and summer was coded as 1 in the second.

Variable	Categories	Mean outcome score	Standard deviation	Analysis of variance
Gender	Male	13.7	4.1	$F_{1,58} = .001$
	Female	13.7	3.8	$p < .97$
Season of birth	Autumn	12.9	4.2	$F_{2,57} = 3.36$
	Spring	15.9	4.0	$p < .04$
	Summer	12.9	3.2	

Table 5.25 – Results from ANOVA between child characteristic variables and writing at outcome

Together child characteristics accounted for 35% of the variance in attainment at outcome (F=4.206, p<.002). Regression statistics for the significant or near significant measures are included in the Table 5.26:

Variable	B	Std. Error	Beta	t	Significance
WPPSI – R vocabulary	1.198	.300	.577	3.999	.001
Season of birth (spring)	.611	1.209	.073	.505	.616
Season of birth (summer)	-1.898	1.015	-.262	-1.871	.068

Table 5.26 – Association of significant child characteristics with attainment in writing at outcome

There was a strong association between WPPSI-R vocabulary subtest scores and writing attainment. Hence, children obtaining higher scores on this measure were likely to achieve higher scores on the writing measures at outcome. Also, it appears that children born in the summer months are likely to perform less well at outcome than those born earlier in the academic year.

Association of home factors and child characteristics with attainment at outcome, taking schools into account

The schools in the study differed on many criteria, including catchment area, intake and organisation. Dummy variables relating to the schools were entered into the analysis in order to see if home factors and child characteristics retained their significance when school differences were taken into account. This was indeed the case. Amongst the four schools, there was no significant difference between the mean scores of children in any of them.

5.3.3 Association of entry skills with writing at outcome

PRE-SCHOOL | ENTRY | SCHOOL | OUTCOME

Home background
Home curriculum
Parent characteristics and experiences

Parent attitudes

Literacy skills, including writing

Child characteristics

CURRICULUM CONTENT & ORGANISATION
Frequency - Range - Emphasis

Teacher attitudes

WRITING LEVEL
Time 1 ──────► Time 2

Teacher Assessments

SATs
Checklist
Writing samples
Teacher assessments

Main Groups of Variables and Their Relationships

A wide range of measures was used to assess the child's skills in writing and related areas when they started school. These included the variables listed in Table 5.27:

Variable	Pearson's correlation with writing scores at outcome
Pre–reading skills	$r = .420$, $p < .01$
Dictated story score	$r = .295$, $p < .05$
BAS copying test	$r = .253$, n.s.
Copying phrase	$r = .108$, n.s.
Writing vocabulary	$r = .417$, $p < .01$
Writing name	$r = .412$, $p < .01$

Key: n.s. = non-significant

Table 5.27 – Correlations between literacy skills at school entry and writing at 7 years

Together the entry skills variables accounted for 34% of the variance in attainment at outcome as measured by outcome total scores (F=3.838, p<.002). Statistically significant measures are detailed in the Table 5.28:

Variable	B	Std. Error	Beta	t	Significance
Pre-reading skills	.007	.033	.373	2.283	.027
Write name	2.594	1.242	.306	2.089	.042

Table 5.28 – Association of significant entry skills with attainment in writing at outcome

Hence, the child's pre-reading skills and their ability to write their name are the variables most strongly associated with attainment at 7 years when the other entry skills variables are taken into account. More specifically, children with better knowledge of letters, concepts about print and who could write their name well at school entry were likely to be the most competent writers at outcome.

Association of significant home background factors, child characteristics and literacy skills at entry to attainment at outcome i.e. the effects on progress

Together these variables accounted for 45% of the variance in attainment at outcome as measured by outcome total scores (F=7.942, p<.001). Statistically significant measures are detailed in Table 5.29:

Variable	B	Std. Error	Beta	t	Significance
Write name	1.2	.98	.16	1.3	.208
Pre-reading skills	.04	.02	.21	1.6	.119
Home writing activities	2.1	.84	.29	2.5	.016
Season of birth (spring)	.17	1.1	.02	1.6	.878
Season of birth (summer)	-2.3	.91	-.32	-2.6	.013
WPPSI vocabulary	.54	.26	.26	2.1	. 038

Table 5.29 – Association of significant home background factors, child characteristics and literacy skills at entry to attainment in writing at outcome

The variable that assessed how well pupils could write their name lost associative power within this model due to its relationship with the home writing variable. This dependency is the result of other manifest or latent variables.

5.3.4 School variables and their association to writing at outcome

In this section, analysis of data collected during the children's time in Key Stage 1 will be reported.

Main Groups of Variables and Their Relationships
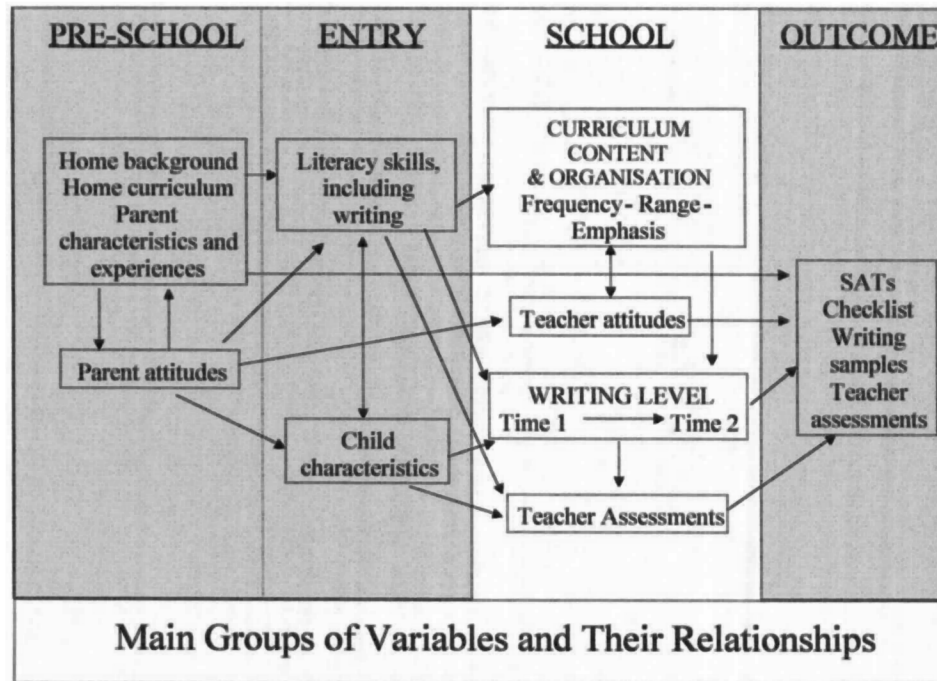
Association of pupil assessments by teachers (Time 1) to writing at outcome

The variables in this group are considered to be child variables and they are listed below:

Teacher (Time 1) assessment of child variables	Pearson's correlation with writing scores at outcome
Expressive language	$r = .314$, $p < .05$
Receptive language	$r = .354$, $p < .01$
Reading	$r = .349$, $p < .01$
Writing	$r = .445$, $p < .01$
Intelligence	$r = .240$, n.s.
Attitude to writing	$r = .541$, $p < .01$
Level of support from child's home	$r = .237$, n.s.
Expectations for future writing development	$r = .253$, n.s.

Key: n.s. = non-significant

Table 5.30 – Correlations between pupil assessments by teachers at school entry and writing at 7 years

The Teacher (Time 1) assessment of the child's intelligence was significantly correlated with the WPPSI-R vocabulary variable (Pearson's $r = .347$, $p < .05$). This indicates that their assessments of pupils' intelligence were reasonably accurate, in that they correlated well with a reliable and valid measure from a widely used cognitive assessment battery.

These variables were entered as a group into the regression analysis and together they accounted for 41.7% of the variance in attainment at outcome as measured by outcome total scores ($F=8.748$, $p<.001$). However, the teacher assessment of the child's attitude to writing at school entry variable was the only one from the set that retained significance after the ANCOVA backwards elimination procedure was used.

Variable	B	Std. Error	Beta	t	Significance
Teacher (Time 1) assessment of child's attitude to writing	4.636	1.603	.488	2.892	.006

Table 5.31 - Association of pupil assessments by teachers at school entry to writing at 7 years

Association of pupil assessments by teachers (Time 2) to writing at outcome

Teacher (Time 2) assessment of child variables	Pearson's correlation with writing scores at outcome
Expressive language	$r = .332, p < .05$
Receptive language	$r = .632, p < .01$
Reading	$r = .612, p < .01$
Writing	$r = .582, p < .01$
Intelligence	$r = .540, p < .01$
Attitude to writing	$r = .571, p < .01$
Level of support from child's home	$r = .383, p < .01$
Expectations for future writing development	$r = .647, p < .01$

Key: n.s. = non-significant

Table 5.32 - Correlations between pupil assessments by teachers at 7 years and writing at 7 years

The regression statistics indicated that together these variables accounted for 50% of the variance in attainment at outcome as measured by outcome total scores (F=18.671, p<.001). Only two of the teacher assessment variables retained statistical significance after the process of backwards elimination was used to step through the ANCOVA regressions.

Variable	B	Std. Error	Beta	t	Significance
Teacher (Time 2) assessment of child's attitude to writing	1.880	.802	.300	2.345	.023
Teacher (Time 2) assessment of child's intelligence	2.210	.911	.284	2.426	.019

Table 5.33 - Association of pupil assessments by teachers (Time 2) to writing at outcome

Overall, perhaps unsurprisingly, more variance was explained by teacher assessments at Time 2 (close to outcome) than at Time 1. The child's attitude to writing was significantly associated with outcome measures at Time 1 and the effect was strong and consistent, and maintained until Time 2. At Time 1 teacher assessments of the child's intelligence were not significantly associated with writing competence at the end of KS1, but by Time 2 they were.

Association of writing sample data (Time 1) to writing at outcome

Writing sample variables (Time 1)	Pearson's correlation with writing scores at outcome
Handwriting baseline	$r = .444$, p < .01
Spelling baseline	$r = .389$, p < .01
Punctuation baseline	$r = -.035$, n.s.
Meaning baseline	$r = .304$, p < .05
Form baseline	$r = .115$, n.s.
Structure baseline	$r = .271$, p < .05

Key: n.s. = non-significant

Table 5.34 – Correlations between aspects of writing at entry and writing at 7 years

The punctuation and form measures did not correlate significantly with writing at outcome because very few children scored on these scales. The lack of variability in the independent variable means that it is difficult to detect any relationships between these and other variables.

The regression statistics indicated that together, these variables accounted for 31.9% of the variance in attainment at outcome as measured by outcome total scores (F=4.146, p<.002). Only the handwriting at entry variable was statistically significant:

Variable	B	Std. Error	Beta	t	Significance
Handwriting baseline	2.895	.826	.499	3.507	.001

Table 5.35 - Association of significant writing sample variables at Time 1 to writing at outcome

Parent and teacher attitudes

Data collected using the Attitude Questionnaires were not significant when entered into the regression analysis, so are not presented in this chapter but in Appendix Z.

5.3.5 Associations between all significant pre-school, entry, child and school variables and writing at outcome

SUMMARY MODEL

PRE-SCHOOL	ENTRY	SCHOOL	OUTCOME

Home background
Home curriculum
Parent
characteristics and
experiences

Literacy skills,
including
writing

CURRICULUM
CONTENT
& ORGANISATION
Frequency- Range-
Emphasis

SATs
Checklist
Writing
samples
Teacher
assessments

Parent attitudes

Teacher attitudes

WRITING LEVEL
Time 1 ⟶ Time 2

Child
characteristics

Teacher Assessments

Main Groups of Variables and Their Relationships

Variables with significant effects from previous analyses were entered into the final

regression model, and together they accounted for 60% of the variance at outcome as

measured by outcome total scores (F=11.89, p < .001).

Variable	B	Std. Error	Beta	t	Significance
Handwriting baseline	1.11	.542	.205	2.049	.046
Teacher assessment of attitude to writing (Time 1)	3.259	1.003	.368	3.249	.002
WPPSI vocabulary	.492	.222	.237	2.214	.032
Home writing	1.889	.730	.263	2.588	.013
Season of birth (spring)	-.156	.954	-.019	-.163	.871
Season of birth (summer)	-2.363	.837	-.327	-2.822	.007

Table 5.36 – Association between all significant variables to writing at 7 years

5.4 Summary of results

First, the relationships among pre-school factors and attainment in writing at school entry were examined in order to gain an understanding of why some children start school with more developed skills in writing. Variables that were significantly associated with writing skills at entry were maternal educational qualifications, family size, whether the parents kept a record of the child's writing at home (home writing) and parental assessment i.e. children whose parents assessed their skill and motivation in writing as 'high' were those who obtained the highest scores when assessed at school entry.

The relationships between these pre-school variables and children's writing attainments at 7 years were examined. The only home variable that was significantly related to progress at 7 years was home writing. Children who were motivated and encouraged to write at home before they started school demonstrated better developed writing skills at school entry, and this effect appeared to be sustained at school with these children performing better at outcome. Measures such as maternal educational qualifications and socio-economic ones

such as paternal occupation were not significantly related to children's progress during Key Stage 1.

Variables which were significantly related to writing at outcome and appear to influence progress in the first two to three years of a child's schooling include the child's WPPSI –R vocabulary score at school entry and whether or not they were born in the summer term. At school entry, those children with more developed pre-reading skills and those who could write their name were more likely to have higher writing attainments at 7 years. Higher scores on the handwriting criteria obtained from the writing samples were also associated with better writing at outcome. Child attitudes to writing as assessed by their teachers at entry and outcome were significantly associated with writing attainments at 7 years. Hence, children considered by their teachers to be easy to teach to write, who enjoyed it and concentrated on it well, did better. This variable had a stronger association with writing at outcome than more direct measures such as teacher assessments of the child's writing. Its influence also appeared to be maintained throughout the first few years of schooling. Finally, pupils' intelligence, as assessed by Year 2 teachers was significantly correlated with WPPSI-R vocabulary scores, and associated with better writing attainments at outcome.

Figure 5.6 provides a visual representation of the main effects in terms of standardised regression coefficients (beta weights) among independent and dependent variables in the summary model. Hence the relative effect sizes of the independent variables on the dependent variable can be assessed by directly comparing the beta weights.

PRE-SCHOOL | ENTRY | SCHOOL | OUTCOME

Home writing

Family size-2 children

Family size-More than 2 children

High parental assessment

Writing and related skills at school entry

Handwriting

Teacher assessment of child's attitude to writing

Born in summer term

WPPSI-R vocabulary

Writing outcome total score

-.36

-.31

.6

.3

.26

.21

.37

-.33

.24
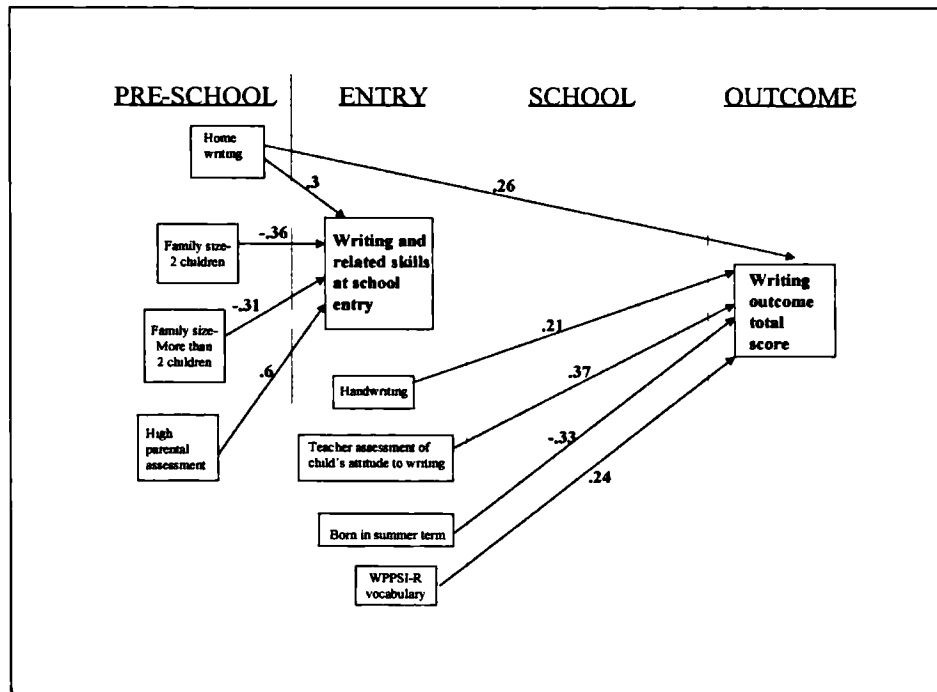
Figure 5.6 – Significant variables and their effect sizes

Some of the interim regression results have been omitted from the summary model. For example, although maternal educational qualifications achieved statistical significance when entered into a regression model with other home background variables, it lost significance in the summary model and hence has not been incorporated into Figure 5.6.

The summary model above does not represent a causal model as such, but it provides information on the relative weights and associations among identified factors and the development of writing in children up to seven years of age, and informs an understanding of the processes involved.

CHAPTER 6

QUALITATIVE DATA

6.1 Introduction

This chapter describes the early writing development of a small group of children, selected for more detailed study. Observations of eight pupils engaged in the process of writing were conducted and these are discussed in relation to the themes that emerged. These observational records are included in the appendices and are valuable because of the insight they offer into the process and context of writing for individual children.

In addition, developmental patterns and profiles of three of these eight pupils are examined in greater detail and their progress between the ages of four and seven described following the same structure as the previous chapter. The aim of presenting comprehensive descriptions of the developmental progress of three pupils located in context is to minimise selectivity in reporting (Silverman, 1985). Moreover, qualitative descriptions of significant variables identified through quantitative analysis offer a form of 'methodological triangulation' (Denzin, 1970), i.e. using an interaction of methods of data collection to interpret and validate results.

In addition to pupil observations, the methodology of the qualitative element of the study involved a combination of interviews and analyses of written productions. For example, teachers were asked an open question about their approach to teaching writing and the resources used. The aim was to gain a more 'authentic' understanding of views and to tap those issues which were important to the interviewee and which may have been missed by more closed interview questions. Individual responses are reported and discussed later in this chapter.

6.2 Pupils selected for more detailed study

To address the fifth research question – *"What is the relationship between school variables and writing at outcome?"* a small group of eight pupils, two from each of the four schools, was selected for more detailed study. Teachers at each school were asked to nominate one boy and one girl, one a 'below average' and one an 'above average' writer to be observed in the process of writing. Detailed observational data were gathered in order to gain an insight into the process of learning to write and to focus on to the interface between individual pupil experiences and the curriculum.

Descriptions of the eight pupils are given below.

6.2.1 Liam M.

Liam was a pupil at School 4 and he was put forward by his teacher as an example of a child considered to be an 'above average' writer. In fact, he achieved a SATs Level 2B in the writing task at age 7, a result that is average when compared to national norms. A detailed account of his writing development is provided as one of the three case study accounts in section 6.4.1 on page 198.

6.2.2 Michelle D.

Likewise, a description of Michelle's writing development forms the basis of the second case study description in section 6.4.2 on page 211. She attended School 2 and her teacher nominated her as an example of a 'below average' writer.

6.2.3 Luke H.

Luke was the pupil at School 2 selected by his first teacher as an example of an 'above average' writer. He was an only child and lived at home with his father, a carpenter and his mother who worked as a cook. He was born in the summer term, and because of the Berkshire L.E.A. schools admission policy did not spend any time in the reception class

but started school in a Year 1 class. Hence, he had had only six terms of formal education before undertaking his SATs at the end of KS1. He achieved Level 1 on the writing task, a below average score and one which is not congruent with his nominating teacher's perception of his ability.

6.2.4 Carla C.

Carla was put forward as the female pupil at School 4 considered to be a 'below average' writer. She was the second child in a family of five children and both parents worked in a general capacity in the retail trade. Her birthday was in the spring term so she spent a total of seven terms in KS1. She was another pupil who achieved Level 1 on the SATs writing task.

6.2.5 Laura F.

Laura's first teacher at School 1 considered her to have 'above average' writing skills. She was the younger of two children and her father worked as a builder, her mother in part-time employment in the local supermarket. A summer born child, she spent just six terms in KS1, achieving Level 2B in her writing SAT.

6.2.6 Ricky O.

Also a pupil at School 1, Ricky was nominated as an example of a 'below average' writer. He was the youngest of four children and the only male. His father worked as a builder and his mother described herself as a housewife. Also born during the summer term, Ricky went straight into a Year 1 class when he started school, and was another pupil who only achieved a Level 1 in his writing SATs when assessed at the end of KS1.

6.2.7 Jade M.

Jade was the pupil from School 3 considered by her first teacher to be an example of an 'above average' writer. An only child, her father worked as a builder, and her mother as a

'full-time Mum'. She was born in the Autumn term and so had the advantage of spending eight terms in KS1, two of them in the reception class. She achieved Level 2C on the writing SAT, a below average result compared to national norms.

6.2.8 Shaun S.

Shaun's teacher at School 3 considered him to be a 'below average' writer. He was the youngest of three children and his father worked in a warehouse, his mother as housewife. He spent a total of eight terms in KS1 due to the fact that he was born in the Autumn term. He achieved a below average Level 1 on the writing SAT at the end of KS1.

6.3 Writing Observations

These eight pupils were observed in the process of writing at two points during the study using an observation schedule devised by Donald Graves (Graves, 1975). Tables U.1 to U.16 in Appendix U contain the observational records and Figures U.1 to U.16 are the associated pieces of writing produced. These can be referred to on pages 334 to 350. Specific features and themes that arose from analysis of the observational records will be discussed in the following sections, and reference will be made to these sources. Tables V.1 and V.2 in Appendix V on pages 351-352 summarise the case study observational data.

6.3.1 Teacher assessments

The pupil information in section 6.2 provides information about the four pupils selected by their first teachers as examples of 'above average' writers (Liam M, Luke H, Laura F and Jade M). These judgments were relative to the norms and standards within individual schools. However, all of these pupils only achieved average or below average results in the

KS1 writing SAT (Levels 1, 2C and 2B) when compared with the performance of other pupils of the same age in England (DfE, 1996). This has implications for standards and expectations within the individual schools and across the LEA.

6.3.2 Developmental range and progression

The writing observations and samples demonstrate that the developmental range exhibited by pupils in the study extend from those whose writing skills were still emergent and experimental to those who had firmly established understandings about early writing. For example, Table and Figure U.15 on page 349 show Shaun S's writing at age 6.4 years. It can be seen that much of the vocabulary has been copied from stimulus words provided by the teacher. Because Shaun had not generated writing from his current level of knowledge and understanding about literacy, he was unable to re-read the text he had produced. He was, however, aware that print conveys meaning, had an understanding of directionality, but did not demonstrate knowledge of the one to one correspondence between written and spoken words. Hence, he failed to leave spaces between words or clusters of letters. His writing indicates that there had been attempts to teach him this concept, and he demonstrated the beginnings of his understandings by using two small vertical lines to differentiate between some words (i.e. before words 13 and 14). Over a year later at 7.7 years (Table and Figure U.16 on page 350) there were clear spaces between words. However, Shaun's production was entirely copied from the stimulus words provided, he showed little independence and willingness to generate text independently, and he made no use of any knowledge of grapheme-phoneme correspondences or a familiar core vocabulary of high frequency words recalled visually. This over-reliance on copying, and limited strategies to generate words independently appears to have constrained his progress.

A pupil put forward by her teacher as an example of an 'above average' writer was Laura F (see Table and Figure U.9) who at age 6.7 years was able to generate a lengthy piece of text with confidence and independence. She made no reference to any resources, and demonstrated application of phonetic knowledge when spelling, as well as use of visual strategies. She was not yet attempting to use punctuation and was reluctant to edit or revise her writing. She re-read her writing with accuracy and enthusiasm. The second observation occurred when Laura was aged 7.2 years and can be seen in Table and Figure U.10. The development in her use of language between this and the previous observation is evident, and her vocabulary choices are wider, if grammatically immature at times. For example, word 29, 'Bid' Laura re-read as 'buyed' which she had written instead of the grammatically accurate, 'bought'. Her writing contains no punctuation apart from a full stop at the end. She also demonstrated early editing skills by proof-reading and revising her text by inserting additional words (between word 75 and 76, and word 85 and 86).

Hence, the developmental range of skills shown by children in the study is wide, and the developmental progression demonstrated by individual children, variable.

6.3.3 Handwriting

All children in the study were taught to print by their schools, and this style can be seen throughout the writing samples. The justification provided by teachers was that print is more compatible with the script in their reading books. In a move towards developing the 'joined and legible script' necessary to attain National Curriculum Level 3, Schools 3 and 4 introduced children to letters with exit strokes (Sassoon, 1990), and examples of these 'flicks' can be seen in Figures U.1, U.2, U.13, U.14.

Observation indicated that certain children had established inaccurate letter formations, which might be linked to reduced fluency in the future. For example, Liam M (Figures

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U.1 and U.2) formed letter 'o' in reverse direction (i.e. clockwise). Jade M (Figure U.13) wrote letters 'm' and 'n' starting at the baseline and omitting the entry stroke at the first observation, but over a year later, this had been corrected and these letters were accurately formed (Figure U.14).

Schools varied in their policy on whether to give pupils lined or unlined paper to write on. Pupils at School 2 were provided with lined paper from the outset. School 1 used unlined paper and justified this by stating that lines can constrain and confuse pupils and cause an undue emphasis on size and letter formation at a time when they benefit from the freedom to experiment. Pupils at School 3 were given plain paper with guidelines placed underneath to help them keep writing straight across the page once they reached Year 2. Pupils at School 4 were given plain paper in Year 1, but as they became more mature and their writing smaller and more controlled, they were introduced to lines.

These varied practices reflect the more general lack of consensus in the teaching profession about the most appropriate point at which to introduce lined paper.

Another area of variation is the emphasis placed by the four schools on the teaching of handwriting. The results of the regression analysis in this study showed handwriting skills at school entry to be strongly associated with more general writing attainments at the end of KS1. The increased fluency of the skilled handwriters will have enabled them to focus to a greater extent on the compositional aspects of writing and so influence the overall quality of their written productions. Michelle D (Table and Figure U.3) started school with poorly developed handwriting skills and because of her school's approach to teaching handwriting she did not receive any direct teaching or opportunities to practice the skill regularly. At the second observation (Table and Figure U.4) at the end of KS1, her handwriting was still poorly developed and her compositional skills extremely limited.

6.3.4 Spelling

Analyses of the errors in the writing samples provide examples of the developmental stages in learning to spell. These will be discussed in relation to the models outlined in Chapter 1 (Gentry, 1982; Frith, 1985).

Some of the pupils exhibited rudimentary spelling errors characteristic of Gentry's pre-phonetic stage or Frith's 'logographic' stage. An example this is shown in Figure U.7, showing a piece of writing produced by Carla C. Recognisable words were copied from models provided by the teacher and other pupils' work. However, it is impossible to decipher some of the words, and indeed Carla was unable to re-read them herself. It can be seen that she understands that groups of letters represent words, and knows some of the letters in the alphabet. However, it is likely that her phonological skills were limited as was her ability to apply knowledge of grapheme-phoneme correspondences. Overall, her limited spelling strategies constrained her production of writing that could be accessed by a wider audience.

By the second observation, over a year later (Figure U.8) Carla's spelling showed a developmental progression and demonstrated a more secure knowledge of phonetics (Gentry's phonetic stage or Frith's 'alphabetic' stage). Her errors indicated an ability to map sounds to symbols in the correct sequence, but ignored 'phonic rules'. So, for example, she wrote 'sced' for 'scared'; 'fere' for 'fairy' ; 'haues' for 'house' and 'were' for 'where'.

Laura F demonstrated the most developed knowledge of spelling amongst the pupils observed (Figure U.10). She had clearly established knowledge of grapheme-phoneme correspondences and showed an understanding of spelling conventions, both standard and phonetic. She could be said to be in Gentry's Transitional stage, and moving towards a well established understanding of conventional spelling. (This equates to Frith's

'orthographic' stage). Errors were plausible phonetic alternatives, such as 'advecher' for 'adventure' and 'sore' for 'saw' - mis-spellings which are homophones of the target word.

Tables V.1 and V.2 in Appendix V summarise the proportion of words mis-spelt in each piece of writing observed. This figure will vary according to the availability of spelling resources. For some children undertaking free writing, the proportion of errors was very high. For example Luke H (6) had mis-spelt 42/51 words. However, the vocabulary in his text (Figure U.6) was unusual, unlikely to be recalled by configuration and so phonetic strategies were drawn on. Shaun S (16) produced text with a lower proportion of spelling errors (12/17). However, this was because he had copied the stimulus words provided and was unable to incorporate them into meaningful text that could be accessed by himself or a wider audience.

The speech and dialogue associated with spelling is worthy of mention at this point. Table U.14 contains detailed annotation of the process Jade M went through in spelling unfamiliar words. In response to Jade's request for the spelling of the word 'poor' (word 9), "Is poor on the board?" her teacher asked her if she could recall how to spell it, and Jade made an accurate response. This is an example of a teacher intervention that enabled the child to draw on existing knowledge and facilitated problem solving. Subsequent discussion between Jade and the child sitting next to her about how to spell certain words indicated a willingness to problem solve in a collaborative manner, and a shared mutual interest in 'cracking the code'. We can speculate on whether the model of facilitation provided by the teacher stimulated this behaviour in her pupils. Hence, these examples highlight the potential benefits of using peers as a resource for extending learning, as well as the importance of constructive, task focused interactions with teachers around writing tasks.

6.3.5 Punctuation

The writing samples contain very few examples of punctuation. There is evidence that the concept has been introduced, but misunderstood. For instance, Carla C. initially produced a piece of writing with no punctuation. She revised her text on completion, inserting capital letters at the start of each line and a full stop at the end (see Figure U.8). Hence, she appeared to have understood the need to divide her text into units of meaning, but had not grasped the appropriate criteria. An appropriate teaching objective at this stage would be to discuss her use of capital letters and full stops within the context of a constructive evaluation of her writing, and to attempt to develop her understandings through modeling and coaching.

6.3.6 Content

Content analyses of the writing samples reveal wide variations in vocabulary, grammar, structure, organisation and levels of description and detail. Stimulus conditions, support available and resources were not constant across the writing observations so direct comparisons would be unreliable. However, there are some general comments that can be drawn out. There are examples of children who generated a basic sentence using simplified language structures. For instance, Luke H (Table and Figure U.5) wrote an approximation to 'I woke up on Friday and I saw Father Christmas. He was giving out presents'. He did not expand his initial idea into a descriptive sequence, and there are no varied or unusual vocabulary choices or language structures. This piece of text represents 'speech written down'.

Laura F (Table and Figure U.9) wrote in more detail, and recounted the major incidents of the preceding weekend. However, like the previous example, this illustrates the 'knowledge telling' strategy described by Bereiter and Scardamalia in Chapter 1. Laura

had recorded her train of thought chronologically and her lack of planning is evident from the structure and organisation of this piece of text. Indeed, she was required to write her 'news', was given no instructional scaffolds or support with planning, and received no feedback on completion, from either her teacher or peers. The second piece of writing Laura produced was generated after a class discussion about possible themes which could be developed from the title 'A Magic Adventure'. Her text indicates that some planning had occurred, as she had organised her main ideas around a framework, developing the main characters' actions in a coherent manner. The beginnings of editing and revision of text were observed. Her writing indicates her familiarity with narrative structures, though her vocabulary choices were straightforward and reflective of oral language use.

Hence, content analysis reveals the range of processes that are active whilst composing occurs, and illustrates how this can vary within and between pupils. This also shows that judgements about the most appropriate ways of supporting and developing writing need to be individually and contextually based.

6.3.7 Teacher-pupil interactions

The observational schedules highlight how minimal task related teacher-pupil interactions were during the writing sessions sampled. Tables V.1 and V.2 in Appendix V provide the summary data indicating that task related interactions only occurred in five of the sixteen writing episodes observed. These examples are annotated in Tables U.4, U.11, U.13, U.14, U.15 and U.16. It is interesting to note that Tables U.13-U.16 record the writing observations which took place at School 3, where there was a clearly defined writing policy in place, and where individual teachers were able to provide detailed accounts of how they develop writing. Furthermore, informal observations confirmed the interactive nature of text generation at School 3.

There was no evidence of pupils receiving detailed feedback from their teachers, and 'conferencing' was not observed.

6.3.8 Support/frameworks for writing

The most usual support available was for the teacher to read the class a familiar story (e.g. Jack and the Beanstalk) and to follow this up with a whole class discussion in which key vocabulary would be generated and written on the blackboard. Pupils were then required to re-tell the story (see for example, Table and Figure U.14). Hence, compositional support was available thorough the framework of a familiar genre and the inherent structure provided by a well-known pattern of events. Also assistance with vocabulary choices and unfamiliar spelling was provided. However, these stimulus conditions were constant and writing occurred on a whole class basis. Pupils did not use individually generated plans during any of the observations. Also, there was no evidence of any task differentiation for pupils in need of additional support and there was minimal instructional guidance and feedback from teachers once writing had begun. Pupils were not given information about objectives and criteria for success that were specific, individualised and related to the task. Indeed the observational records detail 'finishing' as the most regularly cited objective by pupils and teachers (see Tables U.1, U.2, U.8, U.10, U.12, U.13). There was evidence that this was driven by the school timetable, and it is notable that other more qualitative criteria were rarely cited as objectives.

6.3.9 Re-reading

Spontaneous re-reading of text during writing was observed at some points during ten out of the sixteen observations (see Tables U.17 and U.18). Pupils were asked to re-read their writing to the researcher on completion and in most cases they were able to do so. The

children with reading difficulties who had copied words down with no understanding, were unable to re-read their text (see Table and Figures U.4, U.7, U.15 and U.16).

6.3.10 Revising and editing of writing

Possibly because of the age of the children there was little evidence of revising or editing of work. Two of the more proficient writers, Laura F and Jade M, both proof read their texts and made minor amendments as a result (see Table and Figures U.10, U.13, and U.14) but overall, the majority of pupils made few changes to their writing and expressed a reluctance to do so. Possibly because of the influence of Donald Graves' work, many teachers and school policy documents cited this as an objective and claimed to encourage it. However, it may be more realistic and workable to offer early experience of revising and editing through group/shared writing experiences.

6.3.11 Accompanying language

Once more, there were wide variations in the nature and amount of language surrounding the writing episode. Some pupils said very little (e.g. Liam M and Laura F), yet for others there are incidences of task-focused dialogue with peers. For example, Ricky O (Table U.12) discussed handwriting ('I've done a j the wrong way') and asked a question about content ('What shall I write about the magic adventure?'). Jade M.'s accompanying language mainly concerned the location of spellings (see Tables U.13 and U.14). Pupil discussions about the content of their writing were not observed, a representation of the fact that teachers did not encourage children to read their writing to peers, nor engage in collaborative reviews.

6.3.12 Off-task behaviour

Some pupils produced very little writing during the observational period exhibiting significant levels of off-task behaviour. In some instances, they were engaged in legitimate associated tasks (e.g. looking for rubbers, searching for spellings, queuing up for the teacher) but the result was a reduced proportion of time engaged in writing. There are classroom organisational issues that can reduce levels of off-task behaviour and will have an impact on attainment and progress as a result. The structure of the Literacy Hour has enforced some organisational changes, but there is still a need for teachers to observe and monitor individual pupil behaviour and levels of task engagement as part of normal ongoing assessment procedures.

6.4 Case studies

In order to address the research questions from a qualitative perspective and chart the development of individual pupils, three were identified for more detailed study. The three case studies represent pupils with average, above average and below average levels of writing attainment at outcome. These pupils were tracked between the ages of 4 and 7 years, and data is reported following the same structure as the previous chapter and represented in the map showing the main groups of variables and their relationships.

PRE-SCHOOL	ENTRY	SCHOOL	OUTCOME

Home background
Home curriculum
Parent
characteristics and
experiences

Parent attitudes

Literacy skills,
including
writing

Child
characteristics

CURRICULUM
CONTENT
& ORGANISATION
Frequency- Range -
Emphasis

Teacher attitudes

WRITING LEVEL
Time 1 ⟶ Time 2

Teacher Assessments

SATs
Checklist
Writing
samples
Teacher
assessments

Main Groups of Variables and Their Relationships

6.4.1 Case study 1

Child's name: Liam M

School 4 (see Appendix I for description of school characteristics)

PRE-SCHOOL VARIABLES

Home Background

At the time of the pre-school interview with Mrs M (Liam's mother), he was living at home with both his parents. He had no siblings, although his mother was pregnant and a baby brother was born during his first year in school. Both parents were in full-time employment, his mother as a Dental Assistant, and his father as a Damp Surveyor. Both parents were qualified up to 'O' Level standard, but not beyond. Liam had experienced a range of childcare arrangements in his early life. When he was two years of age, his mother returned to work, and he was looked after by a child-minder. He had attended a private day nursery for 4 sessions per week from the age of 3 years.

Home Curriculum

Liam had access to a wide range of writing materials at home as a pre-schooler. His mother listed 19 items which were regularly available – a relatively high number when compared with the other children surveyed.

Liam's mother's assessment of his writing skill level fell into the "high" category (see Descriptive Data on page 135). She stated that he was interested in letters and enjoyed writing. She reported that he could write his name, and would copy sentences from a model. She also spoke of his flexible and adaptable use of writing, and described how he would hide the letters of his name in shapes. Hence, as a pre-schooler, he would regularly engage in a range of home writing activities and this was affirmed by the record kept by Mrs M over 7 days (Diary Record - see Appendix G). Furthermore, examination of his free writing in the exercise book provided showed that Liam had skills at level 3 of the Lamme/Green Scale (see Appendix H) and that his written productions contained repeated groups of letters and at least one word.

In contrast, Liam's mother claimed that both she and her husband wrote infrequently at home, restricting it to functional tasks such as list-making and card-writing. Her recall of being taught to write herself included "tedious handwriting practice and spelling tests". Her aspirations for her son's development as a writer did not extend beyond her own and Mrs M stated, "I hope he will be able to spell well so that everything he writes can be understood". This was defined as 'functional writing'. Overall, in terms of models and expectations Liam's mother's responses were classified in the "low" category (see Descriptive Data on page 135).

Parental Attitudes

Mrs M's responses to the Attitude Questionnaire were analysed as outlined in Appendix Z. She indicated that she believed parents should share the responsibility with the schools for

teaching writing, that writing well was very important and good writing underrated. Mrs M's attitudes indicated a direct view of curriculum delivery – that children should learn by copywriting, and that exposure to appropriate experiences was insufficient for learning to take place. Furthermore, she indicated a formal view towards the teaching of spelling (and one which mirrored her own experience) – that it should be taught by learning lists and correct spelling should be insisted upon at all times. Finally she indicated a belief that children need to appreciate the purpose of writing. Other inconsistent responses are not reported.

VARIABLES AT SCHOOL ENTRY

Child Characteristics

Liam was born in the Spring Term and the LEA admissions policy required him to be admitted to school the term after his fifth birthday, enabling him to experience one term in the reception class, before moving on to Year 1 and National Curriculum expectations. Entry skills assessments seeking to tap his language and cognitive skills, all produced results which were average when compared to national population statistics, and slightly above average when compared to the sample norms.

VARIABLE	SCORE	POPULATION MEAN	SAMPLE MEAN
WPPSI-R Vocabulary	11	10	9.5
BPVS Centile	40	50	43.8
BAS Fluency Centile	47	50	30.4

Table 6.1 – Liam M's scores on a range of Language/Cognitive measures at school entry

Entry Skills Assessments

At school entry, Liam obtained a score of 12 on the Clay Concepts about Print Test, which was slightly above the mean score of 10 for the sample. He was aware that print contains a message, and understood the directionality principle, though at this stage was not able to follow text word by word. He was, however, aware of the difference between words and letters, and of the concepts of first and last.

At school entry he could identify 24 of the 54 letters presented, again slightly above the sample mean of 22. His score on the variable called Pre-reading Skills (which combined data from the Concepts about Print and Letter Identification variables) was 36, a few points above the sample mean of 32. Liam was able to construct and dictate a story with proficiency, and his score of 12 was at the top end of the range of scores obtained by children in the study. Liam incorporated information about who, where, what and how into his retelling as instructed, and he obtained a story grammar classification score of 3 as he incorporated an action sequence. Below is the story he dictated:

> *"One day I went in the field.*
> *I played with my friends.*
> *We went far up.*
> *We played chase.*
> *I caught Cyrus.*
> *Then I caught Luke.*
> *Then I caught everybody.*
> *Easy."*

Liam obtained an above average score (95th percentile) when assessed with the BAS Copying Task. He could write his name clearly and accurately, and obtained the maximum score for this task. He told me that his mother had taught him to do this. However, in addition to his name, Liam was only able to write one other word unassisted – 'I'. He told

me that he had learnt this from his reading books. His writing vocabulary score of 2 was at the mean for the study. Liam obtained a score classified in the middle range of 3 when asked to copy the phrase "on the ground". He wrote letters which were correct, recognisable and in the right order, but did not leave spaces between words.

SCHOOL VARIABLES

Teacher Variables

Liam had two teachers during his time in Key Stage 1. The first, NB, was aged 48 at the time and in her first year of teaching, and the second, BH, was aged 45 and had taught for a total of 16 years.

Teacher Assessments

NB assessed Liam in the average category across all the areas sampled (see Appendix N). BH's assessments were higher in certain areas, and although she considered Liam's language (expressive and receptive) and attitude to writing also to be average, she assessed his reading, writing, intelligence, level of support from home and her expectations for his future writing development as above average.

Teacher Attitudes

Liam's first teacher, NB's responses to the Attitude Questionnaire indicated that she favoured an approach that in some respects was structured and had an emphasis on direct teaching, and in others relied on a more developmental stance. For example, she considered exposure to appropriate writing experiences to be insufficient for the development of writing skills and advocated copy writing with an emphasis on neat handwriting. However, with regard to spelling development, she did not always insist on correct spelling, and considered the learning of lists of words to be an inappropriate way to

teach spelling. This was in contrast to Liam's mother's view. NB was clear about the importance of a parental role in teaching writing, and was an advocate of a joint home-school approach. She indicated that she thought it important for children to appreciate the purpose of a writing task, and that writing well was very important.

Liam's second teacher, BH, shared many of his first teacher's attitudes, although her responses indicated that she considered writing in terms of its component parts, upholding a view about the importance of neat handwriting and believing it to be unnecessary for children to appreciate the purpose of writing. BH also considered that by Year 2, teaching writing was the school's responsibility, and that it was not necessary for the parents to contribute to this.

Factor analysis of the responses to the Attitude Questionnaires provided factor scores for all respondents on each of the factors identified (see Appendix Z for a full account of the factor analysis). Table 6.2 charts the responses of Liam's mother and teachers and enables an assessment of the consistency of responses. For example, there is a high degree of concurrence of attitudes between Liam's mother and teachers on Factor 1 regarding whether home and school should share the responsibility for teaching writing and the importance of purposeful writing activities. Similarly, attitudes that load on to Factor 3 are relatively consistent. However, on Factor 2, there is a marked mismatch between Liam's mother's attitude to correct spelling which she considers to be necessary at all times, and his teachers', who do not. The attitudes of Liam's teachers are broadly shared in all areas apart from the importance they attribute to neat handwriting (Factor 5). His mother and first teacher (NB at T1) both consider neat handwriting to be unimportant, yet the factor analysis confirms that his teacher at T2, BH, considered neat handwriting to be important. This could be related to the SAT's handwriting requirements and changing expectations for older pupils.

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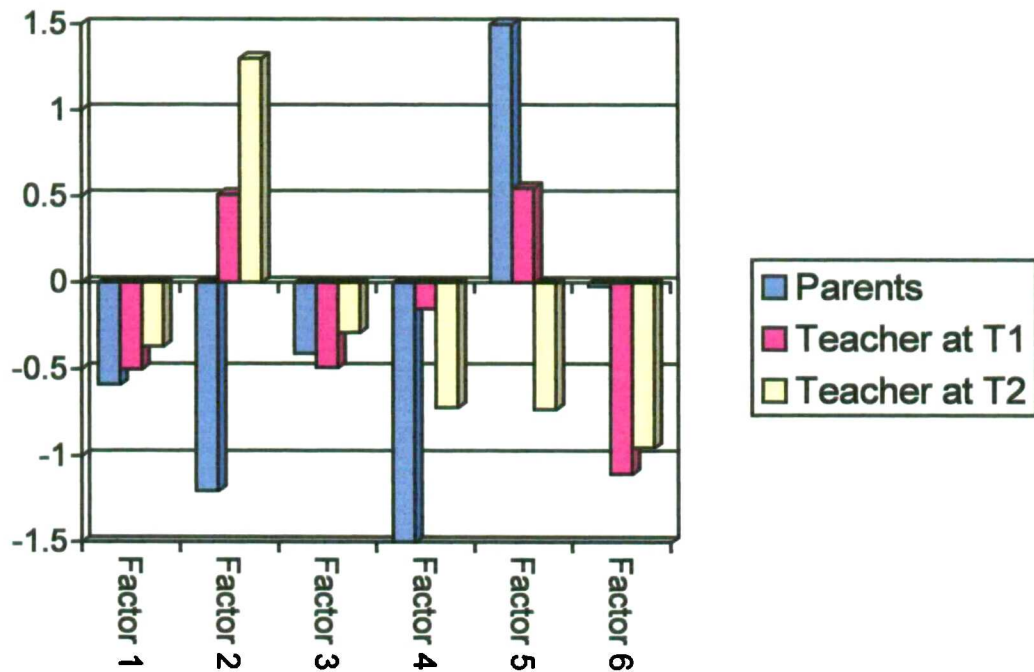
Table 6.2 - Attitude Questionnaire responses of parents and teachers of Liam M.

Key: FACTOR 1 – Shared home-school responsibility and purposeful activities

FACTOR 2 – Correct spelling is not necessary at all times

FACTOR 3 – Emphasis on presentation and reduced importance on writing well

FACTOR 4 – Teaching writing is the sole responsibility of teachers and its
importance is over-rated

FACTOR 5 – Neat handwriting is unimportant

FACTOR 6 – Developmental or experiential approach to teaching writing

Curriculum Information

Both teachers responded to the open question seeking a description of their approach to the
teaching of writing by focusing on secretarial aspects such as handwriting and spelling, and
listing the resources they used to do this (e.g. Nelson Handwriting Scheme, word banks,
dictionaries etc). In addition, NB described the office/writers' corner she had set up in her
classroom – "to encourage reluctant writers into different writing experiences". She also
said she would be prepared to scribe for a child in order to encourage the content of a first

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draft. Neither provided any further detail about the methods, stimuli or materials they would use to develop the compositional aspects of writing.

The following table outlines the activities covered, and the proportion of time spent on each. None of these data were statistically significant when entered into the regression analysis, so they are not reported in the previous chapter. However, they offer useful information when considering the curriculum experiences of individual children:

	Reception/Year 1 NB	Year 2 BH
Workcards/workbooks	monthly or less	daily
Descriptive writing	weekly	weekly
Story writing	weekly	2-3 times monthly
"News" writing	weekly	2-3 times monthly
Handwriting practice	daily	2-3 times weekly
Spelling practice	weekly	weekly
Greeting cards	monthly or less	monthly or less
Labelling pictures	2-3 times monthly	monthly or less
Writing poems/plays	monthly or less	monthly or less

Table 6.3 – Teacher estimates of the proportion of time devoted to defined writing activities

It can be seen that in Year 1, the primary emphasis was on handwriting practice, which was daily, and that this continued at a fairly high level (2-3 times per week) in Year 2. The predominant opportunity for writing in Year 2 was using workcards and workbooks, indicating that tasks were structured but independence in text generation was not the central objective. Both teachers stated that children undertook descriptive writing on a weekly basis, and this is the activity with requirements most akin to the SATs task.

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Writing Samples

Writing samples were collected on a termly basis, by photocopying representative written productions from Liam's books. In this way it was possible to track the development of skills over his time in Key Stage 1. Individual samples were rated according to a set of criteria linked to the SATs requirements (see Appendix W), and a second independent rater conducted a scoring analysis, in order to carry out an inter-rater reliability check (see Appendix X). Areas of disagreement were resolved by conferencing.

Below are descriptive statements outlining Liam's development across the writing sub-skills sampled:

a) <u>Handwriting</u>

Liam started school able to copy letters and words. His letters were usually clearly shaped and correctly orientated, though he had a tendency to omit the spaces between words, making some of his writing difficult to read back. This continued until the end of Year 1. Inconsistencies in his use of upper and lower case letters also continued throughout Year 1, and it was not until the middle of Year 2 that this ceased. By the end of Year 2 he was still writing in print, but his productions were clear, even and well formed with ascenders and descenders distinguished.

b) <u>Spelling</u>

At school entry there were few words which Liam could spell unassisted. By the end of the first term of Year 1, he had acquired a spelling vocabulary of common words which he appeared to recall by using visual strategies. His rapidly developing knowledge of grapheme/phoneme correspondence can be seen in his spelling errors during the second term in Year 1, as evidence of reliance on phonic strategies as well as visual ones (eg 'wot' for water; 'bac' for back; 'huom' for home; 'lolpop' for lollipop).

Increasingly his errors highlight his growing knowledge of phonetic structures and visual patterns, although by the end of Year 2 he was not attempting to spell longer, polysyllabic words, but was sticking to more basic vocabulary which presented fewer challenges in terms of spelling.

c) Punctuation

Liam's early written productions show no evidence of any punctuation. By the beginning of Year 2, he was punctuating the end of a piece of writing with a full stop. Mid-way through Year 2, full stops were occasionally being used in Liam's writing to demarcate units of meaning, although these tended not to be followed by capital letters. Liam's use of punctuation had not developed beyond this when he undertook his SATs at the end of Year 2.

d) Meaning

At school entry, Liam's written productions were at the emergent stage and he used combinations of known letters to represent words or phrases. By the end of his first term in school he had accumulated knowledge of a small spelling vocabulary, and was beginning to communicate meaning through short phrases. His ability to communicate meaning beyond a direct and straightforward account was established towards the end of Year 1, and consolidated in Year 2.

e) Form

Children have to develop a degree of control and competency of the more technical aspects of writing before they develop the ability to write and sustain a particular form. Examination of Liam's writing samples indicated that he did not begin to produce sustained pieces of writing until mid-way through Year 1 and by the end of Year 1 was beginning to write either narrative or non-narrative form, and maintain some consistency.

f) Vocabulary

As mentioned earlier, Liam tended to select basic, simple vocabulary which he could spell, and so there is little evidence of effective vocabulary use until Year 2. Towards the end of Year 2, Liam was beginning to use words such as 'suddenly' and 'surrounded' to good effect.

g) Structure

All the writing samples examined reflected Liam's use of spoken language,

e.g.: *"The lady cooked the ginger bread man"*

"I went to the shops and I bought some beans".

By the end of KS1 Liam's more extended productions still reflect these oral characteristics and employ little variety in sentence structure.

h) Organisation

By Liam's second term in school he was writing pieces beyond one sentence in length, and so required to organise this information. All of his written productions examined demonstrate that although he would introduce new ideas, these would not be developed or referred back to, nor did he make use of connectives other than 'and'.

Writing Checklist

This was completed on a termly basis in order to gain information about writing skills and experiences in evidence, and the child's rate of progress. Appendix Q summarises the data collected for Liam. On 30.11.94, the first data collection point towards the end of Liam's first term in Year 1, his checklist total score of 16 was above the average for the sample which was 14. Likewise, his checklist total score at outcome was 28 which once more is slightly above the sample mean of 26. His rate of progress was average.

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Observational Data

Liam was observed in the process of writing on two occasions. The first of these was on 3.5.95, towards the end of his time in Year 1, and the second, on 5.6.96, in his final term in Year 2. The observational record and writing sample can be seen in Table and Figure U.1 on page 334. The task was for pupils to write their "news".

Liam was able to re-read his writing as follows:

"I went to the park with my friends to have a picnic.

I went to the toy shop and I bought a board and a car crusher".

Table U.1 on page 334 shows that there were no interactions with the teacher during the process of writing. Liam solicited an interruption on one occasion, by asking, "Where's park?" when seeking a spelling in his word book. He demonstrated some re-reading and proofreading, but made no amendments to his text as a result. He wrote in silence, and his writing style can be categorised as "reflective" using Graves' model (i.e. getting straight down to the task, with no rehearsal beforehand, not using speech to accompany writing, with some re-reading/proof-reading being in evidence).

The observational record from the second writing episode is shown in Table U.2 and the accompanying writing sample in Figure U.2, both on page 335. The task was for children to write a piece of narrative about an adventure in a toyshop. The teacher had presented this by discussing possibilities for story development with the class as a whole, and introducing some key vocabulary. She also emphasised that she wanted the children to write in sentences. Liam had been isolated at the start of the session, as the teacher felt he was easily distracted and inclined to go off task. She reported that she felt these difficulties with concentration were resulting in under-achievement. During the writing episode Liam did not interact with his teacher, although he responded to the instruction she delivered to the whole class: "If you've finished, come to me." Hence he received no direct feedback

about the content of his writing, or any other aspects of the process. On this occasion there was no evidence of any re-reading or proofreading. Liam produced a good deal of writing in a short space of time, by writing rapidly with few breaks.

Hence there is some evidence of Liam attending less to the process elements of writing, possibly because of reduced teacher input and emphasis. The lack of review and feedback was unlikely to encourage him to develop skills in this area, as he was given no feedback about <u>how</u> to do it and why it was important. It could be argued that an emphasis on the secretarial aspects of writing and completing the task have contributed to this pattern of performance.

It is interesting to note that Liam's Year 2 teacher, BH, had been unable to provide any detailed information about how she would seek to develop compositional skills when completing the teacher questionnaire.

OUTCOME MEASURES

Liam obtained an outcome total score of 16, which is above the sample mean of 14. He obtained Level 2b in his SATS assessment at the end of KS1 and only 33% of the sample achieved this level or above.

6.4.2 Case study 2

Child's Name: Michelle D

School 2 (see Appendix I for description of school characteristics)

PRE-SCHOOL VARIABLES

Home Background

Michelle's Mother agreed to participate in the pre-school interview in order to provide the home background data. Michelle is the middle child of three, with an older sister and younger brother, and the family lived in a council house in the centre of a housing estate in South Reading. Michelle's father was in employment as a warehouseman at a local supermarket, and her mother described herself as a housewife. Mr D had no educational qualifications, but Mrs D was qualified up to 'O' level standard. Michelle had been cared for exclusively by her mother in her early years, and had attended the nursery class attached to her future primary school for 3 terms before school admission.

Home Curriculum

Michelle had access to a range of writing materials at home, and her mother listed 13 items that were available at the time of the interview. This was in the middle category, when compared with resources available to other children in the study. Mrs D was asked to keep a record of writing skills and activities engaged in over a 7 day period (Diary Record - see Appendix G). She did not do this, and reported that she had not observed Michelle write at any time during the week in question. Furthermore, the exercise book left for collection of any free writing or drawing had largely been filled out by Michelle's older sister. Hence, there was no evidence of home writing occurring during the 7 day observational period.

Mrs D's assessment of Michelle's writing skill level fell into the "middle" category. She informed me that Michelle was beginning to copy from a model, and that this was

important as it "learns them more than we used to". Mrs D also stated that Michelle imitated her older sister's writing behaviour, and would sit at the table with her for prolonged periods engaged in activities involving writing and drawing–like behaviour. Writing produced by Michelle during the second home visit indicated that her writing was at Level 1 of the Lamme/Green Scale (see Appendix H), that it largely consisted of scribbles, mock letters and the M from her name. Mrs D informed me that her husband did not write, and that her own writing was minimal, involving recording on the calendar, cheques and shopping lists. Her husband had attended a school for pupils with Moderate Learning Difficulties and she had experienced difficulties learning to spell, as she tended to write "things down the way you would say them". Her left-handedness also presented her with a degree of difficulty, particularly when undertaking the handwriting tasks that she recalled were central to the writing curriculum when she was at school. Overall in terms of models and expectations, Mrs D's responses were classified in the "low" category (see Descriptive Data on page 135).

Parental Attitudes

Mrs D asked that the Attitude Questionnaire be read to her, an indicator of a lack of confidence or competence in reading. Her responses reflected attitudes that were consistent with her own experience of learning to write. She indicated views about the importance of neat handwriting, with the emphasis being on presentation rather than content. Her responses to statements about spelling revealed that she considered that correct spelling should be insisted upon at all times, and that lists are necessary to teach spelling. Furthermore, she indicated a direct view of curriculum delivery – that children should learn by copy writing, and that exposure to appropriate experiences was insufficient for learning to take place.

VARIABLES AT SCHOOL ENTRY

Child Characteristics

Michelle was born in the summer term, one of a group of children who are not only the youngest in the academic year group, but experience the least amount of time in school. At that time, due to LEA policy, children were not admitted into school until the term after their fifth birthday, so Michelle was denied any time in a reception class, and joined an established group in Year 1 in the Autumn Term 1993.

Entry skills assessments which sought to tap her language and cognitive skills all produced scores that were below average when compared with sample and population means.

VARIABLE	SCORE	POPULATION MEAN	SAMPLE MEAN
WPPSI-R Vocabulary	8	10	9.45
BPVS Centile	18	50	43.8
BAS Fluency Centile	1	50	30.4

Table 6.4 – Michelle D's scores on a range of Language/Cognitive measures at school entry

Entry Skills Assessments

At school entry, Michelle obtained a score of 8 on the Clay Concepts about Print Test, which is below the sample mean of 10. She was aware of directionality in reading, and demonstrated an understanding of some of the language necessary in making sense of print, such as 'first and last', but had few concepts beyond this. This could suggest a limited experience of books in her early years.

She was only able to identify 10 of the 54 letters presented to her, a figure well below the sample mean of 22. Her score on the Pre-reading Skills variable, (combining data from

Concepts About Print and Letter Identification variables) was 18, once more well below the mean of 32.

Michelle was able to construct and dictate a story about playtime, and her score of 5 reflects that she had observed the instructions about content to a degree, and that she was able to relate a descriptive (but not goal-directed) sequence of events. Michelle told the following story:

"We were playing with skipping ropes at dinner time. And then it started to rain."

Because Michelle's written productions were still at the emergent stage, she was unable to score on the writing vocabulary test. She was unable to write her name, and her attempt was awarded a score of 1 to reflect her attempts at letter shapes. Her approximations towards the letters M, i and c in her name were evident, though these were not produced with sufficient consistency or accuracy to be awarded a score. Michelle had difficulties with fine motor control and she found the copying tasks challenging. Her attempts at copying the phrase "on the ground" was barely legible, although some of the letters were good approximations, and she did manage to correctly form the letters o, t, e. She obtained a score classified as "low" for this task. She managed the BAS Copying Task better and obtained a score at the 25th percentile.

SCHOOL VARIABLES

Teacher Variables

Michelle had two teachers during her time in KS1. The first, AS, was aged 28 at the time and she had 7 years teaching experience, and the second, HF, was aged 28 with four years teaching experience.

Teacher Assessments

Both Michelle's teachers assessed her in the below average category across all the areas sampled, except level of home support, which HF considered to be average (see Appendix N).

Teacher Attitudes

There was a high degree of agreement between both of Michelle's teachers with regard to their attitudes towards writing. This was possibly the result of a recently formulated policy document on the subject, and the high level of teacher discussion and debate that had surrounded the process. Furthermore, staff at School 2 adopted a team teaching approach, with discussion surrounding the planning process, and this may have served to reinforce the consensus about the teaching and learning of writing.

Both teachers reflected the view that exposure to appropriate experiences was insufficient for the development of writing, and that a more direct approach was necessary, for example by giving children copy writing opportunities. Both teachers indicated that they considered the content of writing to be important, and that accurate spelling was secondary to this. Neither would always insist on correct spelling, and although AS (Year 1) did not favour learning of spelling lists, HF (Year 2) considered it a useful means of developing a spelling vocabulary. This may reflect the appropriateness of the task for the age group.

Overall, the responses to the statements tapping the role of the parents indicated that teachers considered that the parents shared the responsibility with the school, and that it was important for pupils to have writing experiences as pre-schoolers. Both teachers valued writing and considered being able to write well an important skill.

Comparison between these and Michelle's mother's attitudes reveal many areas of discrepancy and disagreement, in particular with regard to

- Emphasis – presentation or content

- Spelling – importance of accuracy and use of lists.

The inconsistency of attitudes between Michelle's parents and teachers is further illustrated in the chart in Table 6.5, which shows the results of the Attitude Questionnaire factor analysis (see Appendix Z). The factor scores show the discrepancies between Michelle's mother and teachers' attitudes on five of these. Only on Factor 4 is there consistency of responses, as indicated by the negative factor scores.
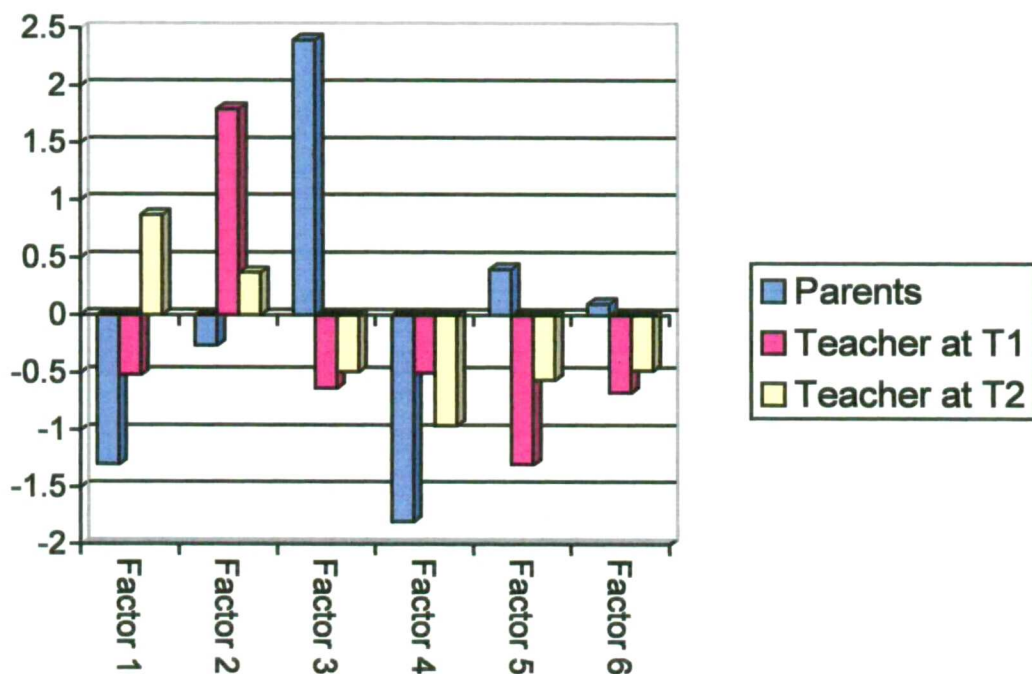
Table 6.5 - Attitude Questionnaire responses of parents and teachers of Michelle D.

Key: FACTOR 1 – Shared home-school responsibility and purposeful activities

FACTOR 2 – Correct spelling is not necessary at all times

FACTOR 3 – Emphasis on presentation and reduced importance on writing well

FACTOR 4 – Teaching writing is the sole responsibility of teachers and its
importance is over-rated

FACTOR 5 – Neat handwriting is unimportant

FACTOR 6 – Developmental or experiential approach to teaching writing

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Curriculum Information

The school's writing policy had been heavily influenced by the work of Donald Graves, and this is exemplified in the following quotation from the policy document:

"This document is concerned with the composition of writing and teachers must be aware that the secretarial aspects of writing must not dominate and ignore the more complex aspects of composition".

This approach is reflected in the teachers' responses when asked to describe their approach to teaching writing, which exclusively outline methods of supporting the development of compositional skills. There is no mention of methods that could be used to develop secretarial skills, particularly for those children experiencing difficulties.

However, the curriculum information supplied by teachers would appear to indicate a more broad based approach than the policy statement suggests:

	Year 1 AS	Year 2 HF
Workcards/workbooks	never	monthly or less
Descriptive writing	2-3 times monthly	2-3times per week
Story writing	2-3 times monthly	monthly or less
"News" writing	weekly	2-3 times per week
Handwriting practice	weekly	2-3 times per week
Spelling practice	2-3 times per week	weekly
Greeting cards	2-3 times monthly	monthly or less
Labelling pictures	2-3 times monthly	never
Writing poems/plays	monthly or less	monthly or less

Table 6.6 – Teacher estimates of the proportion of time devoted to defined writing activities.

It is interesting to compare these data with the curriculum information supplied by the teachers at School 4 (Table 6.3 on page 205), and note the different emphases placed on the teaching of handwriting. Teacher estimates that it only occured on a weekly basis in Year 1 at School 2 meant that a child in need a great deal of practice to develop the skill was not being given the opportunity to do so. However, in contrast, at School 4, the Year 1 teacher estimated that handwriting practice took place on a daily basis. Overall, according to teacher estimates, pupils at School 2 wrote less frequently than their counterparts at School 4. By Year 2, HF reported the predominant writing activities to be descriptive writing, handwriting and spelling. However, handwriting and spelling were taught within the context of a wider writing task, and teaching points made incidentally. So, for example, words for which the pupil had requested assistance in spelling were added to the pupil's word book. However, there was no formalised procedure or method promoted for learning these, or assessing and monitoring progress.

Writing Samples

Writing samples were collected on a termly basis, by photocopying representative written productions from Michelle's books. In this way, it was possible to track the development of her skill throughout her time at KS1. Below are descriptive statements outlining Michelle's development across the writing sub-skills sampled:

a) <u>Handwriting</u>

At school entry, Michelle's handwriting was at the emergent stage, and she used approximations of letters to represent written language. After one term in school, she was able to copy underneath a model provided by the teacher, and many more letters were accurately formed. Without a model, however, her free writing consisted of some letters and letter approximations (many reversed and inverted). Letter formation and legibility of handwriting when letters were copied had improved by the end of Year 1, and in Year 2 this was consolidated and free writing became much more legible,

although inconsistencies in the orientation, size and use of upper and lower case letters remained.

b) <u>Spelling</u>

Throughout Year 1 and into Year 2 Michelle exhibited significant difficulties with spelling, with her written productions demonstrating she was not able to utilise any visual or phonetic strategies (i.e. words she wrote bore no resemblance to the target word). However, mid-way through Year 2, there is some evidence of a growing awareness of the alphabetic principle, as evidenced by some of the spelling errors in her free writing. For example in February 1995 she wrote:

'tede' for teddy

'woc' for woke

'dansth' for downstairs

'seam' for some

There is some evidence of recall of visual patterns emerging at this stage too, and common words such as it, to, and, he are spelt correctly.

c) <u>Punctuation</u>

There was no evidence of any use of punctuation in the written productions examined.

d) <u>Meaning</u>

As already reported, Michelle started school aware of the purpose of writing, and used letter approximations and some letters to communicate meaning throughout most of her time in KS1. Only in the final two terms did evidence of writing for communication of meaning using simple words or phrases begin to emerge.

e) <u>Form</u>

Michelle's writing did not demonstrate sufficient development for her to be able to write in either a narrative or non-narrative form.

f) <u>Vocabulary</u>

Likewise, her vocabulary choices were very limited.

g) <u>Structure</u>

Michelle's writing demonstrates features of oral language use, and examples of written language traditions were not demonstrated in the samples studied.

h) <u>Organisation</u>

Even at the end of KS1, writing was not sufficiently extended for the development of ideas.

There was no evidence of any additional structure, scaffolding or curriculum differentiation made available to assist Michelle with writing tasks, which tended to be open-ended with a compositional emphasis. Her marked difficulties with writing were in evidence in every piece of writing examined.

Writing Checklist

This was completed on a termly basis in order to gain information about writing skills and experience evidence in the child's books to provide information about the child's rate of progress. Appendix R summarises the data collected for Michelle. On 24.3.94, the first data collection point, towards the end of Michelle's second term in Year 1 her checklist score of 13 was below the sample average of 14. However, her progress between then and her checklist total at outcome (on 4.7.95) was extremely limited, and there was only

evidence of progress in two areas, giving her a score of 15. This is well below the sample mean of 26.

Observational Data

Michelle was observed in the process of writing on two occasions. The first of these was on 12.12.94, after one term in school, and the second on 4.7.95 in her final term in Year 2.

The observational record (Table U.3) and writing sample (Figure U.3) can be seen on page 336. The task was for pupils to write down what they wanted for Christmas.

Michelle's oral version (her "re-reading") of her writing was as follows:

"I wanted a stocking and a Christmas Tree. I wanted ... "

It can be seen that this bears very little resemblance to her written production. Furthermore, there were no interactions with the teacher during the event, and aside from access to her word book (which she was unclear how to use) she was given no aids, prompts or structures to assist her. Assistance was sought from a neighbouring child, one who was experiencing equal difficulty with the task. Her writer style falls into the category defined by Graves as reactive. Hence, her attempts to write and review at single word level, high level of overt language surrounding the writing activity, lack of review and emotional, fitful attempts at problem-solving can be cited as evidence of this style.

The observational data and writing sample from the second writing episode are shown in Table U.4 and Figure U.4 on page 337.

On this occasion the task was to write a list of things that could be found at the seaside, making use of a dictionary. Michelle was asked to read back her writing, and she read the date before stating that she was unable to read any of the words she had written. She pointed to the word 'cod' and stated, "It says fish". Although there is one recorded interaction with the teacher, there is no evidence of any review or feedback specific to

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Michelle's efforts. Furthermore, the activity was one presented to the whole class, and once more there was no evidence of any differentiation to match the task to Michelle's needs.

OUTCOME MEASURES

Michelle obtained an outcome total score of 7, which is well below the sample mean of 14.

She obtained Level 1 in her SATs assessment at the end of KS1, a standard achieved by 37% of the sample.

6.4.3 Case study 3

Child's Name: Kieran M

School 3 (see Appendix I for description of school characteristics).

PRE-SCHOOL VARIABLES

Home Background

Both parents were present for the pre-school interview, so contributions represented their agreed responses. Kieran is the middle of three children, and has an older sister and a younger brother. Neither parent was in paid employment at the time of the interview, Mr M describing himself as an unemployed driver, and Mrs M as a housewife. Both parents were qualified up to 'O' level standard, but not beyond. Kieran had been cared for exclusively by his mother in his early years, and had attended the School 3 Nursery Class for the afternoon session for the previous 5 terms.

Home Curriculum

Kieran had access to some writing materials at home as a pre-schooler, but the total of 9 items listed was categorised as "low" when compared with the number of items available to other children in the study. Kieran's parents' assessment of his writing skill level in the term before he started school fell into the "low" category (see Descriptive Data on page 135). Mr and Mrs M informed the researcher that Kieran was not really interested in writing, and that he became bored quickly. He was able to write his name and certain other letters, but that he was more inclined to write on a wall than on paper!

Mrs M was asked to keep a record of writing skills and activities engaged in over a 7 day period (Diary Record - see Appendix G). She produced a careful record , and also provided evidence of her provision of writing support and models in the exercise book left with the family over this period. Examination of the writing samples therein show that Kieran's

skills were at Level 3 of the Lamme/Green Scale (see Appendix H), with written productions containing repeated groups of letters and at least one word.

When asked about writing models at home, Kieran's father spoke of the large amounts of time he spent completing application forms and writing letters. Mrs M also reported filling out forms, but claimed the proportion of time spent writing was very much less than her husband. Parental aspirations with regard to writing related to a level of proficiency that would lead to examination success. Overall, in terms of models and expectations, Mr and Mrs M's responses were classified in the "middle" category (see Descriptive data on page 135).

Parental Attitudes

Mr and Mrs M's responses to the Attitude Questionnaire were analysed as outlined in Appendix Z. Their responses were highly consistent, and indicated their attitudes had been thought through and were well formulated. They represented a view that it was important for pre-schoolers to write, and that parents shared the responsibility with schools for teaching the skill. They valued the compositional aspects of writing above the secretarial ones, indicating they considered neat handwriting unimportant and that insistence on correct spelling was not always appropriate. However, they did believe spelling should be directly taught by learning lists. Mr and Mrs M's responses indicated that they considered that early writing needed to be directly taught by copywriting and exposure to appropriate experiences were insufficient for learning to take place. However, they held the view that children need to appreciate the purpose of writing. Finally, their responses concur with a position that values writing.

VARIABLES AT SCHOOL ENTRY

Child Characteristics

Kieran was born in the spring term, and was admitted to school early, in the term before his fifth birthday, as the school exercised discretion in interpreting the LEA admissions policy and was able to accommodate him. Hence, he experienced two terms in a reception class before moving on to experience the National Curriculum in Year 1.

Entry skills assessments that sought to tap his language and cognitive skills all produced results which were below average:

VARIABLE	SCORE	POPULATION MEAN	SAMPLE MEAN
WPPSI-R Vocabulary	7	10	9.45
BPVS Centile	22	50	43.8
BAS Fluency Centile	10	50	30.4

Table 6.7 - Kieran M's scores on a range of Language/Cognitive measures at school entry

Entry Skills Assessments

At school entry, Kieran obtained a score of 11 on the Clay Concepts about Print Test, which is just above the mean score of 10 for the sample. He demonstrated that he was aware of directionality, understood basic concepts such as 'first' and 'last', 'top' and 'bottom', and knew the difference between words and letters. However, he could not follow a piece of text using word by word matching at this stage. He could identify 31 of the 54 letters presented, which was above the average for the sample (mean = 22). His score on the Pre-reading skills variable (combining data from the Concepts about Print and Letter Identification variables) was 42, again above the sample mean score of 32.

Kieran had difficulty constructing and dictating a story about playtime and his score of 3 for this task was at the lower end of the range of scores obtained by children involved in the study. He did not score well on the completeness of context criteria as he omitted the 'what', 'where', and 'how' elements. Also, his story did not feature a descriptive sequence of events, so he scored at the lowest level on the story grammar classification criteria. Below is the story he dictated about something that happened at platy-time:

> *"Shaun was there and Michelle and Samantha and Jessica*
> *and Jade and Lyndon and Hassam and Adam and Stephen*
> *and that's all who was in my class and me."*

Kieran scored at the 35th percentile when assessed with the BAS copying task, and obtained a score classified in the "middle" range when asked to copy the phrase 'on the ground'. He could write his name accurately and obtained the maximum score for this task (as indeed 42% of the sample did). However, this was the only word he was able to write unassisted. (The mean number of words that children could write by school entry was 2).

SCHOOL VARIABLES

Teacher Variables

Kieran had three teachers during his time in Key Stage 1:

- YR - GS, age 40, 13 years experience

- Y1 - AT, age 41, 19 years experience

- Y2 - JJ, age 45, 23 years experience

Teacher Assessments

In his reception class, his teacher assessed him in the average category across all the areas sampled (see Appendix N). By Year 1 his teacher agreed with some of these average assessments but considered expressive language, reading, writing attitude, home support and her expectations for his future development as a writer to be above average. By the time he reached Year 2, his teacher assessed Kieran as above average in all areas apart from level of support from home. Hence, according to teacher assessments, Kieran made very good progress during his time in KS1.

Teacher Attitudes

The teachers' responses to the Attitude Questionnaire were analysed, and they were highly consistent with each other. They were also consistent with the responses of Mr and Mrs M, indicating a high degree of continuity between the attitudes of all those adults responsible for assisting Kieran with writing development. The only area of difference between school and parental attitudes related to the emphasis placed on neat handwriting – teachers considered it more important than Mr and Mrs M. Also, two out of the three teachers believed that spelling should be taught by learning lists, unlike Kieran's parents.

The individual factor loadings on to the six factors identified by the factor analysis (see Appendix Z) confirmed the high degree of consistency of responses and stability of attitudes. Areas of disagreement related to the importance of neat handwriting (Factor 5) and on Factor 4 relating to the responsibility for teaching writing and how highly it is rated. The negative factor scores of Kieran's parents indicates they gave responses showing that they accepted responsibility for teaching writing and consider writing skill to be important. Alternatively, JJ, Kieran's teacher in Year 2 obtained factor scores indicating that she considered teaching writing to be her responsibility and its importance was over-rated.
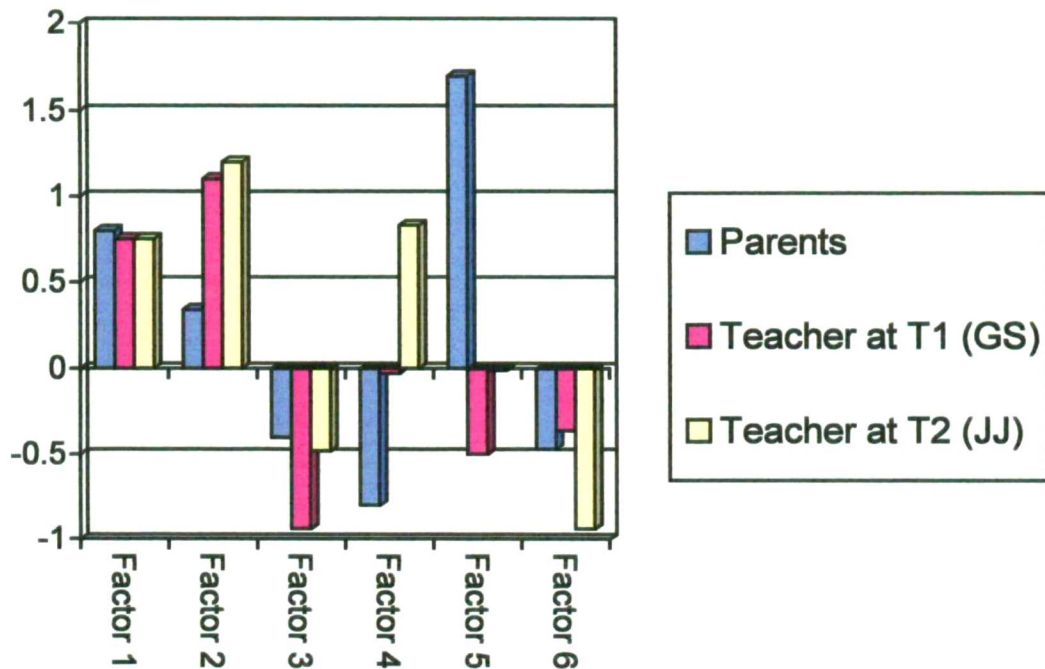
Table 6.8 - Attitude Questionnaire responses of parents and teachers of Kieran M.

Key: FACTOR 1 – Shared home-school responsibility and purposeful activities

FACTOR 2 – Correct spelling is not necessary at all times

FACTOR 3 – Emphasis on presentation and reduced importance on writing well

FACTOR 4 – Teaching writing is the sole responsibility of teachers and its

importance is over-rated

FACTOR 5 – Neat handwriting is unimportant

FACTOR 6 – Developmental or experiential approach to teaching writing

Curriculum Information

All three of Kieran's teachers provided detailed information about how they approach the

teaching of writing. The reception teacher (GS) wrote, "I have an eclectic approach to

writing, drawing on many varying resources and methods appropriate to individual

children's experiences".

AT (Year 1 teacher) described an approach which focused on the different components of writing – she described handwriting teaching with the objective of children being able to write in cursive style by the end of Year 2; spelling practice using the look-cover-write-check method; making use of a variety of stimuli to assist composition; separate teaching and practice of dictionary skills to support writing when acquired. She argued that an advantage of such a structured approach was that it involved inbuilt assessment.

JJ (Year 2 teacher) provided a great deal of information about resources. She also described in detail the support she employed to assist children in the development of compositional skills. She wrote that children were helped to write one or two sentences formally using

a) Word pockets consisting of reading book vocabulary (prepositions, some verbs, adjectives)

b) Picture dictionaries (nouns) – not alphabetically at first.

c) Flashcard boxes, used with the language master

d) Captions around the room

Teachers were asked to provide data about activities covered, and the proportion of time spent on each, and this is presented in the Table 6.9:

	Reception - GS	Year 1 - AT	Year 2 - JJ
Workcards/workbooks	2-3 times per week	2-3 times monthly	2-3 times per week
Descriptive writing	weekly	weekly	2-3 times monthly
Story writing	weekly	weekly	weekly
"News" writing	2-3 times monthly	2-3 times monthly	2-3 times monthly
Handwriting practice	2-3 times per week	weekly	Daily
Spelling practice	weekly	weekly	2-3 times monthly
Greeting cards	monthly or less	monthly or less	monthly or less
Labelling pictures	Never	2-3 times monthly	2-3 times per week
Writing poems/plays	Never	monthly or less	monthly or less

Table 6.9 – Teacher estimates of the proportion of time devoted to defined writing activities.

It is interesting to note that in all year groups there was an increased emphasis on writing in narrative style (story writing, descriptive writing), and reduced "news" writing. Also the emphasis on handwriting practice increased as children got older, with JJ recording that it occurred on a daily basis in Year 2.

Writing Samples

a) Handwriting

At school entry Kieran was still role-playing writing and used groups of known letters to represent meaning. By the end of his first term in Year 1 his handwriting had become considerably more legible, and letters were uneven in size, but correctly formed and orientated. Legibility and fine motor control improved steadily and by the start of Year 2 Kieran's print was even and clear with ascenders and descenders distinguished. Furthermore, he no longer confused upper and lower case letter within

words. In the spring term 1996, mid-way through Year 2, Kieran began to adopt a cursive handwriting style, though inconsistently. By the summer term, he had consolidated this style of writing and improved fluency and legibility.

b) <u>Spelling</u>

Kieran was not able to spell any words apart from his name at school entry. By the beginning of Year 1, his free writing shows evidence of his growing knowledge of spelling which he could recall using visual strategies e.g. the, was, him. He was also beginning to employ phonic strategies, particularly initial sounds. Hence, if uncertain about a spelling, he would record the initial sound followed by a horizontal line, e.g. l___ for 'lost'. This method, however, did not provide him with the opportunity to record his own phonetic word constructions, and examples of his spelling errors were restricted because of this. Examples which are available from Year 1 writing include the following phonetically plausible attempts:

> garden – gardane
> landed – landid
> blast – blssd

By mid-way through Year 2, Kieran's errors showed a growing knowledge of English orthography. Overall, the accuracy of his spelling is good, with words such as another, sailed and greedy spelt correctly. Errors include:

> dirty – dirtey
> bracelet – braslit
> jewels – jules.

By the end of Year 2, the words Kieran selected to write were usually spelt accurately.

c) Punctuation

Kieran's early written productions show no evidence of any punctuation. Full stops began to appear in his writing during Year 1, and by the beginning of Year 2 sentence punctuation was being more correctly used to demarcate units of meaning. This improved throughout the year, and by the time he undertook his SATs in the summer term, other forms of punctuation such as apostrophes, speech marks and exclamation marks were used with accuracy and consistency.

d) Meaning

Once more, the rate of development was notable, with clear progress evident from term to term. Although Kieran's writing was emergent when he started school his attempts to communicate meaning were clear. By Year 1 examples of his writing contained two or three ideas, and showed that he was able to communicate meaning beyond a simple statement. Throughout Year 2 the content of Kieran's productions improved, and he became increasingly adept at communicating his meaning in a lively and engaging manner.

e) Form

In general, Year 1 written productions demonstrate a familiarity with the narrative form and a growing awareness of techniques that could be employed within the genre to engage the audience. Teaching emphasis appears to have focused on the further development of this form in Year 2, possibly as proficiency in this area is more likely to have a direct influence on performance in the SATs writing task.

f) Vocabulary

Vocabulary use was limited in the reception class, and written productions were short and basic e.g. "there was some fish". However, by Year 1 Kieran was selecting vocabulary appropriate to the subject matter. By Year 2 his increasing confidence

ensured more varied vocabulary choices, and by the final term his selection of words added impact to his story telling

> e.g. "roared the giant"
>
> "yelled the giant"
>
> "As he screamed he opened his mouth and spat".

g) Structure

A growing awareness of the structures and conventions of written language can be seen in Kieran's developing writing. By the end of Year 2 he demonstrated an ability to sequence ideas in a logical manner, and develop an idea throughout a piece of text he had generated.

h) Organisation

Once Kieran's writing had become sufficiently extended, his tendency was to organise events using temporal sequences. By the end of Year 2, he demonstrated an ability to organise his writing into an opening sequence, with an action packed middle section and a short, concluding sentence to finish.

Writing Checklist

See Appendix S. On 5.7.94, the first data collection point at the end of Kieran's time in the reception class, his checklist score of 17 was above average for the sample, which was 14. Likewise, his checklist total score at outcome was 34, well above the sample mean of 26. His rate of progress was above average.

OUTCOME MEASURES

Kieran obtained an outcome total score of 23, well above the sample mean of 14. He obtained Level 2a in his SATs assessment at the end of KS1, the highest level achieved by only 6 of the children in the study (10%).

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6.4.4 Discussion of main themes derived from case studies

Home writing

This variable was derived from the data provided by parents on completion of the Diary Record (see Appendix G) kept over a seven day period in the term before children started school. Parents were categorised into two groups – those who completed the record form and those who did not. Michelle D's mother was unable to provide a completed form, informing me that her daughter had not done any writing in the preceding week. Parents of Liam M and Kieran M were able to complete the form indicating that some writing had gone on. Michelle's writing attainments were below average at the end of KS1, and hence these data fit with the data from the quantitative element of the study. The question of what was being measured by the Diary Record is an interesting one. One hypothesis is that it may have been tapping interaction and feedback, i.e. those parents who were closely monitoring, observing and recording and were more likely to be actively engaging with their children in the process of writing. The parents who failed to complete the Diary Record had children who will have had a degree of writing capability, but opportunities to undertake writing were not provided, and there was no formal recognition of any writing outputs during the observational week.

Models of writing at home

The parental interview sought information about the nature and frequency of parental writing models. Closer inspection of the full responses to the open question on the subject revealed that older siblings and other family members provided some of these models. This was not included in the quantitative data collection and analysis because the coding system focused on parental responses. In the case of Kieran M, not only did his parents provide models of writing but his older sister did as well, reinforcing a message giving emphasis and value to the activity.

Pupils' attitude to writing

This variable, derived from teacher assessments was strongly and significantly associated
with writing attainment at the end of KS1. The implication is that pupils' need to initiate
and enjoy writing activities and adults need to ensure that writing is rewarding. Kieran M's
parents reported that as a pre-schooler he was not very interested in writing. His first
teacher assessed his writing attitude as average, but by Year 2 his teacher considered it to
be above average. So, it would appear that for Kieran progress led to an improved attitude,
possibly fuelled by his success.

Continuity between parent and teacher attitudes

It is interesting to note the high degree of continuity between the responses of Kieran M's
parents and teachers. The clear, agreed formulation of views, combined with support and
value of teaching emphases will have provided a consistent framework within which
Kieran's skills could develop. For parents with less clearly defined attitudes or notions of
teaching approaches, offering appropriate support may be more difficult and may further
inhibit the child's progress as a result (e.g. Michelle D's parents).

6.5 The Writing Curriculum

Teacher Questionnaire 2 was designed to provide information about the approach and
delivery of the writing curriculum to pupils in any particular class (see Appendix O). An
insight into teachers' conceptions about writing development and the activities required to
support it was sought to gain an understanding of the interacting variables in school which
influence individual learning and address the fifth research question – *"What is the
relationship between school variables and writing at outcome?"* Teachers were asked to
supply a written response to the following open question:

"Briefly describe how you approach the teaching of writing (mentioning the resources you use)".

Teachers were not given a set of pre-coded responses as these would have supplied a conceptual network which may have guided and influenced their answers.

All twenty-four teachers who completed questionnaires provided detailed responses to the question, filling the space provided and in many cases writing on the reverse of the sheet. The following lists contain the entire range of resources and approaches listed, although it should be noted that these appeared in varying combinations on individual questionnaire returns.

Resources used:

- Word banks
- Dictionary cards (key words)
- Dictionaries
- Word books
- Magic line (where children substitute a line or initial sound and line for a word they have difficulty spelling)

Activities to develop secretarial skills:

- Tracing letters
- Copying writing
- Handwriting exercises
- Spelling - look-cover-write-check
- Phonic work / letter-sound relationships

General statements about teaching developing writers:

- Facilitating emergent writing experiences in home corner, writing table etc.
- Encouraging independent writing

- Encouraging reluctant writers
- Developing confidence
- Ensuring enjoyment

Some of the responses to the question were fuller and broader than others, and the variety of methods and approaches become apparent on reading the text. Below is a selection of teacher responses to the question:

1.   Teacher = SR at School 3

23 years teaching experience

Age group taught = Reception

"As a reception teacher I use a variety of approaches to the teaching of writing. It is vital to build up the child's confidence as a writer and encourage a pride in pictures and writing. Also when children write independently it is important to value and encourage their efforts. I ensure that there are always writing materials and tools available e.g. in the imaginative play area. Children undertake some copy writing. Children need to see writing being modeled, so I let them see me doing it and provide good examples of writing for them to look at. I also focus on handwriting as a separate skill – activities and letter formation (using ideas in Cripps' 'Handwriting for Spelling'). Also phonic skills (we use Letterland) helps to develop early spelling. Also children need to build up their sight vocabulary to help spelling, and I also use word banks, word walls etc. Encouraging children to write the initial letter followed by a magic line for a word at first develops confidence and writing skills. I introduce a variety of writing activities e.g. stories, news, worksheets etc. Children need to write for various purposes and make progress at their own pace through the stages of independent writing."

2. Teacher = AT at School 3

    19 years teaching experience

    Age group taught = Years 1 and 2

"I consider the development of all the skills that a child needs to write independently in all my plans for the term/year. This includes phonic work, initial sounds, CVC word building, rhyming words, word study skills and spelling practice using look, cover, write, check. The children develop their handwriting skills throughout the time in school and work towards a joined style by the end of Year 2. In writers' workshop I encourage the use of skills acquired, support further development in individuals and assess skills mastered. Children have access to a word wall and pre-selected vocabulary. Writing stimuli varies. Examples of writing are presented and developed in class time when a story is compiled by the children and written by the teacher using correct punctuation, full stops, capital letters and following story sequences. This is not left for children to copy but gives them a correct format to aim for. Dictionary skills are practiced separately from writing sessions but support writing skills."

3. Teacher = JS at School 1

    20 years teaching experience

    Age group taught = Reception to Year 2

"Reception and Year 1: copying word or sentence dictated by child, creating group story or poem for sentence construction and using descriptive words. Using common beginning phrases. 'I went...' or 'I saw...'. Link phonics, initial sounds from reading to writing, initial sound followed by 'magic line' for unknown words. When child is confident with initial sounds and core vocabulary transfer from copy-writing to free writing.

<u>Year 2</u> - Use of dictionary and word books. Extend the written work to more sentences, more detail to describe events. Develop formal story writing skills using sequencing sheets for 'beginning', 'middle', and 'conclusion'. Retelling familiar stories in own words. Story writing using different view points of events, e.g. the child's own experience of the fire of London, following a group or class discussion for vocabulary and ideas. Spellings - look, cover, write and check. Learning of blends and digraphs. This is all covered using various writing tasks, and augmented by a writing table where children have access to paper and assorted pens and pencils for any free writing they choose, and incorporated to assorted 'home corner' situations."

4.   Teacher = NB at School 4

       2 terms teaching experience

       Age group taught = Year 1

"Introduce letter shapes with various patterns / dotted pictures. Encourage reluctant writers to trace over scribed writing, progressing to copying scribed writing. Encourage the use of word books, dictionaries. Initially I do not worry about spelling, concentrating more on correct letter formation and spacing. Formal handwriting lesson every week with teacher demonstration on the blackboard. Writing is undertaken daily in one form or another."

5.   Teacher = SB at School 4

       20 years teaching experience

       Age group taught = Year 1

"As we discussed when you were in class - variety of methods for variety of purposes - all linked with reading/word building and phonics.

Writing for formation etc - linked with reading/phonics - how to form the letters - dictionary work etc. - usually formally taught and children practice what they have been shown. Also general practice each morning to develop flow and fluency in handwriting i.e. writing patterns.

Writing for story - might have to sacrifice standard of writing and be prepared to scribe more for child to encourage the content of the first draft - also use of computer and concept keyboard.

Office/writers' corner - to encourage reluctant writers in different writing experiences - notes for teacher etc.

P.S. School follows the Nelson handwriting scheme."

6.   Teacher = HF at School 2
        4 years teaching experience
        Age group taught = Year 2

"Stories tend to be introduced with a published story or (more effectively) with one of my own 'made up' stories. I usually then give children a starting place, and initially we brainstorm ideas for 'events'. A lot of our writing is report writing which allows us to concentrate on the skills aspects rather than the imaginative side of writing."

HF taught at School 2 and the writing policy advocated a clear process writing or whole language approach, with no reference to the development of secretarial skills. This is reflected in her response.

Other teachers' responses indicated a greater emphasis on secretarial skills. The practice of JS who has completed her teacher training 30 years earlier, still reflected some of the more traditional educational influences from that era. For example, she believed that pupils should copy from a model at the start of their time in school, and gradually move towards free writing when they have sufficient phonic knowledge to make use of word-books and dictionaries. This practice is not reflected in the reports of younger, more recently trained individuals who were more likely to refer to valuing pupils' emergent writing and indicate less of a drive for the production of accurate models, a greater willingness to accept errors and inaccuracies in pupils' writing.

Overall, analysis of the teacher responses to the curriculum emphasis questionnaire reveals marked differences between individual teachers, with the lack of clarity and consistency about the best ways of supporting writing development being notable. It would be interesting to explore whether the National Literacy Strategy has influenced practice, and if so, in what way.

The writing policy at School 3 was clearly defined and teachers at the school articulated a consistent and cohesive approach towards teaching writing. The first two examples illustrate this. Teachers in the other three schools adopted a more individual approach to the delivery of a writing curriculum, and at School 4 considerable differences between the curriculum content across parallel classes within the same school were evident. NB detailed a traditional, skills based approach to teaching writing, even though she had completed her teacher training two terms earlier, and one would have expected her practice to be influenced by the more recent research based practice. Conversely, SB, a teacher of exactly the same age (48 years) with 20 years teaching experience, described a wider, more eclectic approach to developing writing skills, incorporating influences from traditional and process approaches. SB was the only teacher to mention the use of the computer and concept keyboard to teach writing.

None of the teachers mentioned any home-school policy relating to writing, and when this omission was discussed informally with a small sample, there was an articulated reluctance to involve parents with this aspect of the curriculum. Reasons cited were that parents 'could encourage children to get into bad habits', they would misunderstand the tasks and possibly assist pupils in an inappropriate manner. Putting young children under unnecessary and undue pressure to do homework tasks was another reason cited, and an alternative view was that such a task would be unlikely to be completed, as many parents had low levels of literacy, and did not read with their children, so were unlikely to write. The general position of teachers was that reading was a much more straightforward literacy task to set and monitor than writing.

6.6 Summary

The quantitative aspect of the study identified a range of variables that were significantly associated with writing at school entry and at the end of KS1. Qualitative data were gathered to extend the analysis and explore in more detail the relationships among individual pupils' writing development, the home and school curricula, and other contextual factors.

The qualitative data will be discussed in relation to the analytic model.

PRE-SCHOOL	ENTRY	SCHOOL	OUTCOME

Home background
Home curriculum
Parent
characteristics and
experiences

Literacy skills,
including
writing

CURRICULUM
CONTENT
& ORGANISATION
Frequency- Range-
Emphasis

SATs
Checklist
Writing
samples
Teacher
assessments

Parent attitudes

Teacher attitudes

WRITING LEVEL
Time 1 ———→ Time 2

Child
characteristics

Teacher Assessments

Main Groups of Variables and Their Relationships

The quantitative data analysis indicated that the home writing variable was significantly associated with writing at entry and outcome. The case studies provide illustrations of writing at home in the term before school entry and demonstrate how the parents' willingness to complete the diary record may be an indicator of a more widespread, interactive support system existing around writing activities in the pre-school period and beyond. For example, Kieran M, one pupil who made particularly good progress with writing in school, had a mother who not only provided a careful record, but also produced evidence of the writing support and models she had used. This was an example of a very high level of commitment on the part of the parent. Likewise, Liam M, a child who achieved an average level of writing competence at outcome was supported in writing during the pre-school period as evidenced by the diary record and examples of writing provided by his mother. However, in contrast, Michelle M had marked difficulties with writing at school entry and had made little progress when assessed at outcome, her scores being below average in all aspects of writing. Her mother did not keep the diary record, and commented that Michelle had not written during the observational week.

Hence, the case studies illuminate the relationship between the task and parental interest and engagement with writing and stimulate a consideration of the reasons why this may impact on writing at entry and outcome. This theme will be discussed further in the next chapter.

Quantitative data analysis indicated that the children of parents who assessed their skill and motivation in writing as 'high' were most likely to be classed as the most competent writers during their first term in school. Data from the case studies illustrated how parents who were interested and involved in their children's early education (e.g. Liam M's mother) accurately assessed writing competence as 'high', concurring with judgments made by the researcher at school entry. However, the qualitative data also shed light on the profiles of pupils whose parents judged their writing skill to be 'low'. For example, Kieran M showed little interest in writing and was very resistant to engaging in activities initiated by his parents. However, once at school his interest was captivated and channeled and he made very good progress. So, although a parental assessment of high skill and motivation in their child is associated with greater writing competence at school entry, this variable ceases to show a significant direct effect by the end of KS1. It would appear that other intervening factors become influential in school, and these can have a stronger effect on pupil progress.

Once pupils had started school, eight were selected for more detailed observational study. The qualitative data showed how certain pupils wrote more competently and confidently at school entry (e.g. Laura F) and skilled handwriting was linked to higher levels of skill with other aspects of the process, such as spelling and composition. The association between higher handwriting scores at school entry and better writing at outcome was reported in the previous chapter. The observational data illustrated how the constraints imposed by poorly developed handwriting skills appeared to inhibit the overall writing development of some pupils. For example, Michelle D and Shaun S had extreme difficulties with the grapho-

motor aspects of the process at school entry, and these were linked with delayed development of writing skills in general. Both these pupils made negligible progress with all aspects of writing during the two years they spent in KS1.

Teachers' assessments of pupil attitudes to writing were significantly associated with writing at outcome, but the qualitative data did not provide information to uncover the bases on which the judgments were made or enhance an understanding of why they were so predictive.

Teacher Questionnaire 2 was designed to elicit qualitative information about the nature and frequency of writing tasks, to assist analysis into the approach and delivery of the writing curriculum. The results highlighted the variations in activities, emphases, stimuli and timetabling from class to class. Teachers varied in their philosophical approaches, and writing policies between schools were different. Overall, the qualitative data highlighted the differences rather than the similarities between classes. The quantitative data analysis failed to identify any distinct patterns of curriculum organization or delivery significantly associated with better writing at outcome.

Hence, the qualitative aspect of the study provided data that illustrated and gave a sense of children's experiences of learning to write. It enabled a more detailed understanding of effects associated with certain variables, and provided pointers for areas which would benefit from a more detailed qualitative focus in future research. These will be discussed in more detail in the next chapter.

CHAPTER 7

DISCUSSION

As outlined earlier, the aims of this research were:

- To study the relationship between home variables and writing development in pre-school children.

- To obtain measures of writing and related skills on school entry.

- To conduct an analysis of the areas of continuity and discontinuity between variables at home and at school, and influences on subsequent writing development.

These broad aims were linked with more specific research questions. These will be taken in turn, and examined in the light of this study's results (both quantitative and qualitative), the research literature and the context at the time of writing. It is relevant to reiterate that although the data collection period was between 1993 and 1996, there have been major changes in the way the literacy curriculum has been delivered in British classrooms since September 1998 due to the introduction of the National Literacy Strategy. Hence, in order to reflect on the data, it is necessary to consider it in relation to subsequent educational and political influences and agendas.

7.1 Question 1. *What is the relationship between pre-school variables and writing at school entry?*

Home background variables were considered, and one that was significantly related to writing attainment at five years was the mother's educational level. Hence, children whose mothers who had qualifications at 'A' level (or equivalent) and above, wrote better at

school entry. Since the primary caregivers of children in this study were almost exclusively their mothers, their influence is likely to be significant. It can be speculated that the mothers with higher educational qualifications were more aware of the conditions conducive to the development of literacy skills and be more likely to "press for achievement" (Hess et al., 1980).

This finding replicates findings from other studies that have reported a similar effect. For example, Tizard et al. (1988) found that mothers with higher educational qualifications were more likely to be oriented towards literacy and to show positive attitudes during literacy focused interactions. Wells (1985a) also reported a relationship between parental educational level and the emphasis on literacy in the home pre-school. Hannon (1995) argued that the parental role during the pre-school period is an important one, stating:

> "The importance of the parent's role can be understood in terms of four things they can provide for developing readers and writers: *opportunities* for learning, *recognition* of the child's achievements, *interaction* around literacy activities, and a *model* of literacy. Some parents probably provide these more consciously, more meaningfully and more frequently than others."

(Hannon, 1995, p. 51)

A second home background variable that was significantly related to writing at school entry was family size. Children with no siblings were more likely to achieve higher scores when assessed at entry than children from families of two or more children. It could be argued that this is the result of the higher level of adult attention and interaction awarded to children without brothers or sisters. Indeed there is research data that documents the educational advantages of being an only child (Breland, 1974; Falbo & Posten, 1993). There is also a body of research that outlines the influence of family position and composition on the development of the child.

The data derived from this study suggested that family position was not strongly associated

with writing development at five and seven years. However, family configuration was not examined, although some researchers have acknowledged its influence. Weinberger (1996) describes how siblings (particularly older ones) shape the literacy context for the child and provide role models:

"... having a sibling and being a sibling provided children with opportunities and encouragement to become involved in literacy events and practices. However, several parents explained that because they had additional children in the family, it was also true that some of the children with older brothers and sisters tended to be given less time on literacy together with their parent, compared with the time that they spent with their first child. What we need to remember is that the composition of the family has an effect on the literacy events and practices of the home which in turn influences the children's literacy development."

(Weinberger, 1996, p. 58)

A third home background variable that was significantly and independently related to writing at seven years was home writing. This was derived from the Diary Record (i.e. the observational record of writing skills/activities completed by parents during a one week period in the term before children began school). Some parents completed the form, but many did not, for a variety of reasons. They were divided into two groups - those who completed the Diary Record form, and those who did not. Hence it could be argued that the completion of the form tapped a latent variable - parental commitment to, and engagement with, their child's writing. It may also be related to more general active levels of parental support with writing and it may be that certain parents communicated the message that writing is a valued and rewarding activity through literacy-focused interactions with their children. This message is likely to continue once children attend school and be enhanced and reinforced by the value systems and attitudes encountered there.

Kroll (1983) reinforced this point in a discussion about the significant association between

parental levels of interest in literacy and subsequent writing development, stating:

"... there may be a more direct relationship between parental interest in literacy and writing

attainment. Parents who demonstrate an interest in their children's early efforts to read are,

almost certainly, parents who continue to provide support and a source of motivation when

their children confront the demands of school tasks....Thus, it may not simply be the case

that parental interest gives the child a head-start on reading by enhancing knowledge of

literacy, but also that continued interest and support at home is important for the

development of writing ability."

(Kroll, 1983, p. 116)

Tizard et al. (1988) also reported a significant association between the amount parents

taught their children to read and write at home and subsequent literacy development.

When considering the reasons why some children and their parents are more likely to

engage in literacy-focused interactions, the reciprocal nature of parent-child relationships

needs to be taken into account. A child who enjoys and engages easily with writing is more

likely to elicit a positive reaction from their parent, and receive a higher level of

constructive input. This may influence self-esteem and attitude towards writing, factors that

will continue to exert a constructive influence on the pupils' approach to writing when they

become older, more independent learners.

Sulzby (1990) argued that most pre-school children are capable of some form of emergent

writing, and Hall (1987) also described how children in a nursery were eager to write given

materials and a meaningful setting (e.g. they would record a telephone message).

However, some children will 'hide' these abilities (Sulzby, 1990). Hence, it is possible

that those children who did not produce any writing during the observational week failed to

write for reasons other than lack of ability (such as lack of meaningful context, motivation,

drive, interest or opportunity) and that the home writing variable is tapping something

deeper than writing capability. It may be that lack of positive acceptance and valuing of

earlier writing attempts had led to suppression of the behaviour.

The descriptive data suggested that all children had access to some writing resources at home before they started school, a finding that is in line with other studies (Hannon, Weinberger and Nutbrown, 1991). For practical reasons the accessibility of the resources listed by parents was not measured, even though its importance is acknowledged (Harste, Woodward and Burke, 1984). Nonetheless, the availability of writing materials was not significantly associated with writing at five or seven years, probably because of the lack of variability from home to home, and also the general availability of resources in the majority of homes and in other pre-school and nursery settings.

This research did not find a significant association between parental provision of more frequent, communicative or complex, sustained models of writing and children's writing competence at either five or seven years. This is in contrast to the findings of Wells (1987) who reported that more proficient writers at nine to ten years of age were children whose parents wrote frequently and purposefully at home. This difference could have occurred for one of the following reasons:

First, the skewed nature of the sample, and the reduced number of 'good' writers from highly literate families may have resulted in the effect not being sampled.

Second, the association may not become evident until children become older, and produce more complex, sustained pieces of writing themselves.

Third, the majority of parents (63.3%) reported that their writing was simple and functional (e.g. lists, cheques, notes), forms of writing that are highly visible to children. Those parents who reported engaging in more complex, sustained forms of writing presumably also wrote in this simple, functional manner. However, children may not have witnessed their parents producing the more extended pieces of writing as it is less likely to have taken place during the busy times of the day when they were around. Hence, in younger children

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any association may be more difficult to tap, although the importance of literacy, motivation, interest and access in the home as widely reported is accepted (Wells, 1985a; 1987; Tizard et al., 1988; Snow et al., 1991).

The variable that was strongly associated with writing at entry was parental assessment. In particular, those parents whose assessment of their children's skill and motivation with writing was categorised as 'high', tended to have children who did better when assessed at school entry. Perhaps this seems unsurprising, but it does indicate that parental assessments of the more competent writers were accurate. It could be argued that this occurred because these were the parents who were more sensitive to their child's developmental level, who had more interest in and engaged with their children writing, and so were most likely to scaffold activities in an appropriate manner.

The analysis involved consideration of parental perceptions of their children's capacity and motivation with writing, and this data was defined within the model as a parent factor. However, underlying the parental assessment variable are the child's abilities, and these exist independently of parental perceptions and could be defined as child factors. In fact, child factors were not considered during the pre-school period, and had they been, the size of the parent effect may have been reduced.

7.2 Question 2. *What is the relationship between pre-school variables and writing at outcome?*

Only one of the variables correlated with writing attainment at school entry retained its effect over the period of the child's time in KS1. The home writing variable continued to be significantly related to pupil progress, possibly because certain parents retained the active levels of support and engagement that they had established pre-school. The mother's

educational level, family size and parental assessment were not related to children's progress once they started school.

7.3 Question 3. *What is the relationship between child characteristics and writing at outcome?*

In this study, the writing attainments at 7 years of age of the children born in the summer months (May – August) were lower than those of the children born at other times of the year. As already reported, at the time this study was conducted pupils were admitted to school on a termly basis at statutory school age (i.e. the term after their fifth birthday). Hence, the summer born children were not only the youngest and least mature in the academic year, they had also experienced the least time in school. Furthermore, these pupils did not spend any time in the reception class and were required to start school in Y1, with all the accompanying National Curriculum demands and expectations. The general view expressed by teachers was that lack of time in Reception resulted in these children being less well prepared, having fewer co-ordinated learning experiences appropriate to their developmental level, less time to settle into the culture of school and fewer opportunities to establish themselves socially than their older peers. Hence, when classes came together in Y1, the summer born children were considered to be at an immediate disadvantage.

The educational disadvantage conferred by a summer birthday is well documented in the research literature. Many studies have demonstrated that summer born children have lower levels of academic achievement than their autumn and spring born contemporaries (Pidgeon and Dodds, 1961; Fogelman and Gorbach, 1978; Bell and Daniels, 1990). Significant age related differences have been reported at Key Stage 1 (Shorrocks, 1993; Sharp, Hutchison and Whetton, 1994) and the effect continues into higher education, as

significantly more autumn born individuals graduate from university (Russell and Startup, 1986). Shorrocks (1993) investigated whether length of time in school was the cause of the season of birth effect and concluded that it was not the sole factor, as even when time in school was taken into account, summer born children still performed less well. Other studies have looked at whether there is a 'Pygmalion' effect and whether teachers have lower expectations of the youngest children in their classes (Sharp, 1995) and if they make sufficient allowances for age differences between the children in their classes (Mortimore et al., 1988). The consensus appears to be that a combination of these influences is operational.

Since the study took place, Berkshire L.E.A. has been disbanded following local government reorganisation, and the new Unitary Authorities have reviewed their Admissions policies. Reading L.E.A. continues to admit pupils to school on a termly basis, but at the start of the term *before* their fifth birthday. Another development since this study was conducted is that many more of the assessment measures used in schools have age adjusted norms, ensuring that the raw performance scores on standardised tests obtained by summer born children are not directly compared with their older contemporaries. It could be argued that this should raise teachers' awareness of age related effects and make it more likely that they will make judgements about the performance of individuals which will take account of their birth date and developmental level.

The WPPSI-R vocabulary subtest was another child characteristic associated with writing attainment at 7 years. It is argued that this subtest is

> "... a test of word knowledge, (and) may involve a variety of cognitive functions or features – including learning ability, fund of information, richness of ideas, memory, concept formation, and language development – that may be closely related to the child's experiences and educational environment."

(Sattler, 1974, p. 179)

Correlations with other language measures (BAS verbal fluency and BPVS) were statistically significant, although these other measures were not associated with writing attainments at outcome. Hence, this supports the argument that the vocabulary subtest is tapping some additional information, and this is responsible for the strength of the association. Kaufman (1994) postulated that in addition to language development and word knowledge the vocabulary subtest samples crystallised intelligence, learning ability and abstract thinking. Furthermore, it is the subtest of the WPPSI-R battery that is the most highly correlated with full scale IQ ($r = 0.6$) and along with the other verbal subtests is a significant predictor of future academic performance (Kaplan, 1996). However, in addition it may be that the vocabulary subtest taps some aspect of the social conventions of language use that are important for educational success. Tizard et al. (1988) reporting the significant relationship between WPPSI-R vocabulary variable and literacy skills speculated that it might reflect

"... the influence of a particular kind of family environment, where stress is laid on understanding the meaning of words. At any rate, the predictive power and independence of this variable is a reminder that it is not only parental support for literacy that is strongly related to attainment, but also the child's own characteristics."

(Tizard, Blatchford, Burke, Farquhar and Plewis, 1988, p. 115)

The writing process is closely related to other modes of language, and many authors have drawn parallels between writing and oral language (Vygotsky, 1986; Donaldson, 1978; Graves, 1983). Beard (1988) argued that children's oral language at school entry displayed many features of written language in terms of grammatical structures and linguistic conventions. However, this is not reflected in early writing and the expressive and receptive language measures at school entry in the present study (BAS Verbal Fluency, dictated story and BPVS) were not significantly associated with writing at seven years. Kroll (1983) also reported that pre-school oral language measures did not strongly correlate

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with writing in younger children. It may be that the relationship between writing and oral language is weak early on because the predominant focus of most children whilst writing at Key Stage 1 is skills related. Only by the end of Key Stage 2, when secretarial skills are sufficiently mastered, does it become possible for children to channel sufficient attention on to the compositional elements for oral competence to exert an influence on the content of writing.

The child characteristic that was not related to writing attainment at 7 years was gender, a finding that is not in line with other recent studies (Berninger et. al., 1997; Ofsted, 1999), which have reported that girls outperform boys.

7.4 Question 4. *What is the relationship between writing at school entry and writing at outcome?*

Children's ability to write their name at school entry was associated with writing attainment at outcome. Ferreiro (1984) reported that children's attempts to write their name will be the first "stable string" of letters that they produce, and that learning to do this is highly significant. This may be related to the fact that it is an indicator of familiarity with and interest in written language, and the significance of this finding is reported in a number of other studies (Clay, 1977; Durkin, 1966). Since mandatory baseline assessment was introduced in September 1999, schools are required to assess whether children can write their name. It is a target that is incorporated into the 91 accredited baseline assessment batteries that many schools have voluntarily used for some years, and is now cited as one of the Desirable Learning outcomes for 4 year olds (SCAA, 1999). Indeed the emphasis on the attainment of this skill by school entry has influenced the norms, as the number of four year olds able to write their name at school entry increased from 10% to 25% between 1997 and 1998 (Performance Indicators in Primary Schools, 1999).

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The pre-reading variable combining the pupils' knowledge of letters and their concepts about print was also related to writing at outcome. Several other studies have reported that the ability to identify letters is associated with more general success with the acquisition of early literacy skills (e.g. Muehl and DiNello, 1976; Tizard et al., 1988). There is evidence that norms are becoming adjusted upwards as pre-school children are increasingly being taught these skills, and the PIPS project reported that in 1998 75% of four year olds could recognise the first letter of their name compared to only 58% in 1997 (Performance Indicators in Primary Schools, 1999).

Similar upward shifts in literacy using three tests from Clay's diagnostic survey have been reported in New Zealand (McNaughton, 1995) and are shown in Table 7.1:

	Concepts about Print		Letter identification		Writing vocabulary	
Age (years and months)	5.0	5.6	5.0	5.6	5.0	5.6
Clay 1966 (n=100)	5.1	10.7	3.9	16.2	-	-
Clay 1985 (n=72)	7.2	13.6	15.5	36.5	2.1	13.9
Nalder 1985 (n=16)	6.8	16.0	13.6	41.6	2.1	21.0
McNaughton et al. 1990 (n=17)	8.1	14.2	15.2	43.5	1.3	8.6

Table 7.1 - Children's average scores on 3 tests in four studies over more than 20 years (McNaughton, 1995, p. 149)

In considering the reasons for this increase, McNaughton suggests that New Zealand society has experienced social and cultural shifts that have been reflected in changing family practices. He does not elucidate on the specific nature of the changes but argues that

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this illustrates the dynamic nature of child development.

The focus on improving standards of literacy in Great Britain has meant that the social changes underpinning changing practices are more explicit and have been driven by the Government's agenda. Attention has shifted into the pre-school area (SCAA, 1996) and the direct teaching of letter knowledge is now established as an important early skill in a child's developing literacy set. The Curriculum Guidance for the Foundation Stage (QCA, 2000) now incorporates specific early learning goals, specifying that children are expected to have acquired knowledge of letter names and sounds by the end of the Reception year. However, Tizard et al. made a point that still has relevance:

> "This relationship between early and later attainment is not necessarily causal. For example, it cannot be assumed that it was **because** children had some knowledge of letters at age four that they read better than their classmates at age seven. Another factor, such as the child's interest in books, or belonging to a "literary" kind of family, could have been the cause of both the early and the later attainment."

> (Tizard, Blatchford, Burke, Farquhar, and Plewis, 1988, p. 168)

Nonetheless, the increased emphasis on literacy acquisition has impacted on pre-school curricula. There is increased availability of information designed to guide parents in assisting their child's development and a developing market for materials such as workbooks, educational magazines and software for parents of pre-school children to purchase. Hence awareness of educational goals has been raised, and it could be argued that this is an example of the direct influence of the social and political agenda on the early literacy experiences of many children.

7.5 Question 5. *What is the relationship between school variables and*

writing at outcome?

7.5.1 Handwriting

In this study, assessment of writing samples indicated that higher handwriting scores at school entry were associated with better overall writing performance at seven years. Other aspects of writing such as spelling, punctuation, vocabulary, structure etc. were not significantly correlated with writing at outcome.

Blatchford (1991) also reported a relationship between good handwriting skills at school entry and later writing ability and hypothesised that this underpinned a more general familiarity with written language, which successfully supported subsequent development.

Similarly, Harvey and Henderson (1997) reported highly significant statistical correlations between children's handwriting during their first three years in school and KS1 attainment levels in reading, writing and maths as well as performance on standardised tests of reading and spelling. They consider that this may be due to an overall construct of 'intelligence' which is strongly related to performance in all school subjects, arguing that handwriting makes substantial cognitive demands on the individual and it is likely to be influenced by general ability.

Further evidence linking the importance of lower level developmental processes in writing acquisition comes from a study by Berninger et al. (1992). These researchers provide evidence that for beginning writers, lower level developmental processes such as neuromotor function, visual-motor integration and orthographic coding predict subsequent writing acquisition. They argue that these component skills and capacities provide crucial bedrock on which higher-level compositional skills can be built.

Beard (1991) also argued that for pupils to produce writing which effectively utilises sophisticated compositional strategies they

"... need some competence with the tapestry of transcription (spelling, grammar, vocabulary) with either paper or keyboard."

(Beard, 1991, p. 18)

Likewise, Meek (1991) argued that handwriting fluency is needed before the writer can focus on the compositional aspects of text generation. Kellogg (1996) measured the number of words written per minute as a crude indicator of writing fluency, and demonstrated how experience gained through regular practice improved fluency and the subsequent efficiency of the whole system.

The observational data in this study provided some basic information on writing speed, which can be seen in Tables V.1 and V.2 on pp. 351-352. At the first observation, when children were aged between 6.1 and 6.7 years, writing rates ranged from 0.4 to 5.3 words per minute. By the second observation, pupils were aged from 7.0 to 7.8 years, and their writing speeds were between 1 and 8 words per minute. These can be compared with some of the norms provided by other researchers:

Age	Words per Minute	Researcher(s)
5 years	1-2	Graves (1984)
6 years	4-5	Mason (1989)
7 years	7	Mason (1989)
7 years	8-10	Sassoon, Nimmo-Smith and Wing (1986)
7 years 10 months	3-4	Alston (1992)
8 years	9	Mason (1989)
8 years 10 months	5-6	Alston (1992)

Table 7.2 - Summary of average writing speeds reported in a range of studies

It can be seen that there is considerable variability between mean writing rates quoted in different studies, probably as a result of sampling and task variation. Hughes (1997)

reported wide variations in average writing speeds in children aged between five and seven years, quoting fastest rates of 16 words per min which reduced to 9 words per minute when children focused on handwriting and presentation. When required to attend to spelling and compositional demands as well, Hughes reported writing rates that dropped to 4 words per minute. Several children in this study wrote at a rate that was even slower than this.

Hence, for many young children, writing is a slow and cumbersome process, which is likely to take longer when they are required to attend to the many demands imposed by the process. The more slowly that children physically write words on to paper, the more difficulty they are likely to have with text generation as a whole.

7.5.2 Spelling

The data derived from the writing samples collected each term illustrated the developmental progression of spelling, and this was seen to parallel the development of compositional aspects of writing that occurred as the secretarial aspects became increasingly automatic. The application of Frith's (1980) cognitive model and Gentry's (1982) stage model of spelling development were useful in the analysis and categorisation of children's errors, and these are described in the case studies reported in the qualitative chapter. However, this procedure had limitations in that it was not unusual for individual writing samples to contain features of more than one stage (Treiman, 1993), which presented problems when making developmental judgements based solely on error analysis.

Share (1995) suggested that those children who start school with good knowledge of grapheme-phoneme correspondences and phonological awareness are at an advantage because this knowledge underpins the development of a self-teaching word recognition system, which drives spelling development. Indeed, it appears that children need to be

secure in their knowledge of grapheme-phoneme correspondence before spelling attempts become plausible (Goswami and Bryant, 1990; Treiman, 1993). It is with this increasing confidence in their abilities that spelling becomes more automatic.

Data from the Attitude Questionnaire highlighted that parent and teacher attitudes were relatively consistent about the use of spelling lists to teach spelling. The majority reflected a view that lists were a good idea, although a significant minority (30%) of teachers rejected the practice and two of the schools (School 1 and School 2) had policy statements that advocated a developmental approach to spelling at KS1 and the incidental acquisition of spelling knowledge.

Affirmative answers about the use of spelling lists were not followed up with questions about why this should be and how lists could be used to assist learning. However, it could be speculated that those who favoured lists did so because they had been taught in this manner and because they make the learning of spelling very explicit. Furthermore, the regular tests which accompany spelling lists imply that learning is occurring and being regularly monitored. However, as Smith and Elley (1997) argue:

> "Spelling is a skill which is often tested but seldom systematically taught in school. Testing is not to be equated with teaching."

> (Smith and Elley, 1997, p. 100)

They criticise the use of spelling lists on the grounds that they do not link in with the literacy curriculum. Furthermore such lists are unlikely to relate directly to individual interests or developmental profiles so their usefulness is limited. Smith and Elley also cite the limited retention of words learned for a spelling test and the lack of generalisation to other forms of writing as an argument for abandoning this practice.

There is evidence that many pupils will learn to spell through exposure to words in reading and given some additional assistance (Clark, 1976). Peters (1970) presented evidence that

the form this additional assistance takes is crucial and that the approach that the teacher adopts will directly influence progress with spelling acquisition. However, some pupils will have greater difficulty and will require more structured teaching (Reason, 1990). Mosely (1990), commenting on the difficulties many pupils have in coming to grips with the vagaries of English orthography, stated that one third of pupils misspell 5-10% of words in a piece of prose they write and one sixth misspell more than 10% of words. He also argued that many pupils will not select words if they are unsure of the spelling, and hence fear of misspelling will inhibit vocabulary choice.

Brooks and Weeks (1999) in a study of spelling in 6-8 year olds, reported that teaching effectiveness depended on the learning styles and preferences of individual children. They evaluated ten different teaching methods and found the following to be the most effective:

- Onset – rime (for pupils with phonological strengths)
- Neurolinguistic programming (NLP – for pupils with visual strengths)
- Look-cover-write-check

They recommended that teaching programmes should be individualised to take account pupils' individual learning profiles and learning styles. Hence, there are indications that it is important for teachers to monitor pupils' spelling development, to view spelling errors diagnostically, to keep detailed, individual records of pupils' developmental progression with spelling and to use this data to inform the development of a spelling programme.

This is a controversial area that has become increasingly political. Anecdotal reports from teachers suggest that the teaching of a core vocabulary of key spelling can improve performance in KS1 SATs. Moreover, the evaluation the first year of the National Literacy Strategy states:

"Many headteachers and literacy co-ordinators identified weaknesses in spelling as important curricular targets. These weaknesses had often been highlighted for schools by the results of the Key Stage 1 English tests. However, few schools gave sufficient attention to the planning of spelling work, or made good use of schemes of work, either commercially produced or developed in the school."

(Ofsted, 1999, p. 73)

7.5.3 Planning and Revision

The classroom observations indicated that teachers did not always assist pupils with planning (e.g. during writers' workshop sessions, when writing "news"). There was some evidence of teachers planning writing with their whole class, discussing potential content and supplying some key vocabulary. There were no instances of pupils being introduced to the planning strategies described by Bereiter and Scardamalia and outlined in the introduction. It is interesting to note that developing and encouraging planning is now detailed as an aim at KS1 in the National Literacy Strategy (DfEE, 1998). For example, in Year 1, Term 2, text level writing composition objective 14 states that pupils should be taught:

"... to represent outlines of story plots using, e.g. captions, pictures, arrows to record main incidents in order, e.g. to make a class book, wall story, own version."

(The National Literacy Strategy, 1998, p. 23)

The children in the study were shown to be reluctant to review and revise their writing. There is evidence that at KS1 pupils rarely make spontaneous revisions to their writing, but will do so given teacher guidance (Cameron, Hunt and Linton, 1996; Berninger, Fuller and Whitaker, 1996).

During the time spent in KS1 classrooms the researcher observed examples of activities described by teachers as redrafting which actually involved the child copying from an

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earlier draft overwritten with teacher's corrections – an onerous and tedious task with the sole purpose of producing a perfect model under difficult conditions. There is also implied criticism of the child's original written production that could have a negative impact on their attitude to writing in the future. Temple, Nathan and Burris (1988) commented that younger writers' reluctance to redraft could be related to the fact that they had already invested so much energy into the task that any additional revision would impose an unrealistic burden and have a demotivating effect.

In fact, there are no requirements with regard to revisions at KS1 in the National Literacy Strategy, an indication of a shift in emphasis in educational thinking that is compatible with the qualitative observations reported in this study.

7.5.4 Curriculum emphasis

In this study an attempt was made to quantify and sample the forms of writing that took place in Key Stage 1 classrooms. This was done through teacher report, although it was recognised that such survey methods are open to criticism because of the weak correlation between the measures and actual behaviour (Bryman, 1988). Indeed the data reflected the inherent flaws in the sampling method as teacher reports of the proportion of time spent writing were substantial, yet lacked face validity, as the written outputs observed in children's books did not support this. The data obtained did not add to an understanding of features of the writing curriculum that influence writing development as none of the data supplied by teachers relating to curriculum content or coverage were significantly associated with writing attainments at outcome. What was apparent, however, was that the acceptability of emergent written forms and invented spellings varied from classroom to classroom, as did the stimulus information, emphasis on revision, nature and levels of teacher feedback, teacher models etc. These features of the learning context are likely to

have been directly linked to children's understandings of writing, and the means they used to manipulate and extend this knowledge (Dyson, 1988). Because of the variability within and between schools and difficulties measuring aspects of the context that will have influenced learning, it was not possible to ascertain the curriculum emphases that were the most beneficial and supportive for individual children.

7.5.5 Writers' Workshop

During the period of data collection many teachers reported running writers' workshop sessions to develop writing skills. The influence of Graves (1983) and the process approach to writing is outlined in Chapter 1 and was witnessed to a greater or lesser degree during visits to the project schools. The main feature of Graves' approach that was evident in the writing sessions observed was that the whole class wrote at once and pupils decided on the subject matter. However, in practice these sessions did not occur on a daily basis, "conferencing" did not take place regularly and there was very little evidence of redrafting and revision. Furthermore, there was little evidence of publishing. Teacher modelling was observed in some classrooms, but by no means all. The qualitative data in this study provides evidence of a lack of attention to individuals by teachers, and the exposure of some pupils to tasks and activities which not only fail to extend existing understandings and knowledge systematically, but undermine confidence to such an extent that it is likely to be detrimental to the child's future learning and well-being. Hence, the reality of the writing experience for many children in school was that they were expected to develop skills in spite of limited and variable models, feedback and support.

There is a growing literature that is critical of this approach to teaching writing. Stotsky (1995) argues that children will not be given sufficient experience of alternative genres if the emphasis of a writing curriculum is on the production of personal narratives. Walmsley

and Adams (1993) outline the pragmatic problems for teachers of managing the demands

of a whole class of children writing at once, and highlight the impossibility of conducting

individual conferences within the limited time available. As Smith and Elley (1998) state:

> "Process writing, without an active teaching and conferencing role for the teacher is
>
> unlikely to produce competent, enthusiastic writers."

<div align="right">(Smith and Elley, 1998, p. 56)</div>

Harris and Graham (1994) discuss the difficulties that writers' workshop sessions can

present to children with learning difficulties. They argue that:

- requiring children to invent spellings and teacher refusal to provide accurate spellings

  can frustrate pupils, who are aware of their errors and may find it difficult to re-read

  their writing. Furthermore, unlearning invented spellings may be extremely difficult

  for some children, particularly those with memory difficulties.

- fluency in handwriting is difficult to achieve without practice, and children may be

  physically unable to record their thoughts because of this physical constraint.

Harris and Graham argue that as a result writers' workshop sessions can become frustrating

and unproductive experiences for many children, stating that the fact that this model of

curriculum delivery

> "... precludes the active, explicit, scaffolded development of strategies, skills and
>
> understandings about writing is clearly a concern to many special educators."

<div align="right">(Harris and Graham, 1994, p. 241)</div>

General classroom observation of writing sessions during the data collection phase of the

study indicated that on reviewing pupils' writing teachers were more likely to relate

specific teaching points to secretarial aspects and suggest corrections concerned with

spellings, sentence structures or capital letters, rather than the content of writing. This may

have been because the teachers felt that the content of the children's written work, for their stage of development, was valid in its own right. Alternatively, it may have been because they did not attend to, or were unaware of how to give appropriate feedback on compositional aspects of writing. Indeed, very little emphasis was placed on the reasons why certain pieces of writing were considered successful in terms of their content.

The observational data reported in the qualitative chapter provided no examples of collaborative writing between peers. However, there is an increasing body of research that demonstrates the benefits of allowing friends opportunities to work together (Hartup, 1996) as it has been shown to extend the use of metacognitive strategies and metalinguistic language in writing (Jones, 1998). Increasing teacher awareness of the facilitative effects of establishing constructive working arrangements between friends would extend and enrich the range of opportunities to develop writing in a manner which is likely to encourage enjoyment and positive attitudes.

Morrow et al. (1998) propose a framework for an early literacy curriculum, based on their research and conclude that the following elements should be included:

- shared writing, where the teacher acts as the facilitator or scribe, structuring and recording the children's dictated contributions.

- guided writing, which normally takes place individually or in small groups of children with similar needs, with the teacher offering direct and explicit instruction of a particular skill.

- writing alone or collaboratively with another child or group.

- display and reading out of written productions.

Very few of these elements were observed during the numerous visits to KS1 classrooms during the study. As mentioned, pupils tended to write alone with varying stimulus

conditions. Since the advent of the National Literacy Strategy in 1998, changes have been observed. In the report detailing the evaluation of the first year of the National Literacy Strategy, some evidence of shared and guided writing is noted, although this is considered to have been implemented less successfully than guided and shared reading (Ofsted, 1999). During the Literacy Hour it is specified that pupils should work individually or in groups for approximately twenty minutes, and this provides the opportunity for collaborative writing, albeit for a brief duration. Also pupils are more likely to perform/read out their writing during the plenary ten minutes.

7.5.6 Organisation and management

The qualitative study indicated that many pupils were off task for significant proportions of time during the writing observations. There were many sources of distraction, not always related to the task. The levels of off task behaviour varied between pupils and between classrooms, but the importance of effective classroom organisation and management and its implications for pupil achievement should not be underestimated (Webster et al., 1996; Reynolds, 1998).

7.5.7 Attitude to writing

One of the school variables most strongly associated with writing at seven years was the teacher assessment of the child's attitude to writing, both at school entry and in the final term in Key Stage 1. Hence, those children perceived by their teachers as enjoying writing the most, being able to concentrate well on a writing task, and being the most 'teachable', were likely to be the most competent writers at outcome. Indeed, teacher ratings on the writing attitude variable explained more variance than ratings on more direct measures

such as writing or reading. This variable may not just be a reflection of the child's attitude as assessed by the teacher, but an indicator of a positive interaction between them around writing activities. It should also be noted that different teachers could elicit different attitudes and levels of motivation in their pupils.

There have been several research studies that have investigated the role of affective and motivational factors in writing (Graham, Swartz and MacArthur, 1993; Hayes, 1996; Mavrogenes and Bezruczko, 1993; Shook, Marrion and Ollila, 1989) and its relationship with writing competence. Indeed, motivated writers enjoy the activity and gain intrinsic satisfaction on completion of a task. Pupils who are anxious about writing are more likely to state that they do not enjoy it and procrastinate. These individuals will have difficulty generating content and are more likely to avoid writing, displaying higher levels of off task behaviour than motivated writers. The retrieval and application of knowledge can also be inhibited by negative affect (Kellogg, 1994).

7.5.8 The social context

The qualitative design sought to uncover information about the socio-cultural aspects of literacy acquisition. For example, parent and teacher questionnaires attempted to find out about the belief systems of individuals and elicit details about related literacy practices. In addition, pupil observational data enabled the interactions around writing to be sampled as they reflect the social, affective and cognitive systems which frame writing development (Englert and Palincsar, 1991). Although illustrative, these data were not generalisable or detailed enough to be able to draw any conclusions.

The observational data gathered in schools provided information about the nature of early writing experiences. The bias towards encouraging pupils to write in the narrative genre was evident, confirming the contention that this genre is particularly valued in primary

schools (Kress, 1994). The data also revealed the diverse and variable nature of literacy practices in homes and schools, but the emphasis of the research design did not enable more thorough investigation of the precise nature of these practices, nor their impact on the experience of learning to write.

Baynham (1995) commenting on literacy practices in this country argued:

"... we need to know more, and in greater depth about the diversity of literacy practices in countries like the United Kingdom. The surveys carried out by the Linguistic Minorities Project have provided a baseline for such research, but the overview of survey research needs to be complemented by qualitative case-study research, which can illuminate literacy practices in multi-literate individuals and communities, and add to our knowledge about what it means to manage literacies rather than literacy."

(Baynham, 1995, p. 35)

Hence, Baynham challenges the single model of literacy, arguing that diverse literacy practices exist in our society that should be tapped into. It is interesting to consider this conceptualisation within the context of the National Literacy Strategy. Since its implementation there has been increased standardisation of literacy practices in schools, which are more didactic, formalised and consistent than the range of cultural/home-based literacy practices previously experienced by children. It is likely that many of the literacy practices disseminated through the National Literacy Strategy will not reflect the experiences of parents and it will be interesting to observe the effect of these prescribed practices on the socio-cultural literacy climate in the future. It is possible that through the exploration of a wide variety of genres that today's children will become more adept at constructing text for a wider range of purposes and audiences than preceding generations, but only through systematic evaluation in the future will the full impact of the current system become clear.

7.6 Theoretical Implications

Hayes' (1996) model (see Chapter 1) was derived from studies of adults, and it highlights the social and cognitive processes that are operational during mature writing. The main components or elements of this model were evident during assessments of younger writers, indicating that its use could be extended. For example, the observational data highlighted the crucial nature of the relationship between the task environment and the individual, and the need for any appraisal of a child's functioning to take account of the context in which it occurs. However, application of the Hayes model to younger writers necessitates consideration of the relative importance of the components of the system, which appear to exert a differential influence in young children. For example, the development of automaticity in secretarial skills appears to be significantly related to the development of compositional skills in beginner writers, yet the model does not take account of this. Indeed, Swanson and Berninger (1994) argue that the model seriously underestimates the constraints imposed by immature transcription (text production) skills on compositional abilities.

Hence, there is a need to evaluate automaticity and consider the constraints to the integration of the processes necessary for the production of coherent text. Integration of processes is an important goal of writing and the means of achieving it will vary from child to child. Individual profiles will differ, as will the strengths and weaknesses of system components and the range of strategies children use. Difficulties encountered by young writers will also be idiosyncratic and vary according to a range of situational variables (task, stimulus conditions, support available), as well as cognitive ones (ideas generation, conceptual organisation, memory) and affective factors (interest and motivation, cost/benefit analysis).

The Hayes model does not link elements of the task environment or individual cognitive

make-up to outputs or observable writing behaviours, and does not connect the processes involved in turning thoughts into writing. This is an area for theoretical development that would improve its practical utility. However, the model has been influential because it raises awareness of the complexity of processes involved in writing, highlighting the varied cueing systems that a child needs to co-ordinate in order to create meaning. The cognitive pressures and physical demands are likely to make writing particularly onerous for younger children, who will need a greater level of support from the task environment. The model does not identify important features of a supportive task environment.

The need to ensure that learning tasks are scaffolded to appropriate and varying individual levels fits with the theoretical model of Hayes (1996) who contends that the complexity of the competing processes involved in writing can overload attentional capacity. Kellogg (1996) also puts the case that capacity needs to be 'funnelled' on to one or two processes to reduce overload and suggest that this should be done with teaching support. Substantive and procedural facilitation (Scardamalia and Bereiter, 1986) are well-researched methods that teachers can employ to provide this.

The Vygotskyan concept of 'zone of proximal development' and the importance of scaffolding as a means of supporting children to achieve a higher level of competence have been discussed. This study indicated that these notions are particularly important with regard to writing, and understanding the curriculum differentiation necessary because of the idiosyncratic nature of its development. The role of 'tutorial interactions' (Wood, Bruner and Ross, 1976) in child development is also important, and the ability of the adult to tailor support to take account of the task demands and the skills and characteristics of the child will influence attainment. By its nature, scaffolding necessitates a one to one teaching arrangement (Wood and Wood, 1996) and the applicability of this concept to whole class teaching has been questioned (Hobsbaum, Peters and Sylva, 1996). However, Beed, Hawkins and Roller (1991) suggest that scaffolding can occur in group learning situations

"... when the teacher temporarily focuses the interaction on a particular child. In this sense, group interaction is not interaction with a group of individuals, but rather is interaction with the individuals of a group."

(Beed, Hawkins and Roller, 1991, p. 651)

There is a need for more precise identification of the nature of constructive tutorial interactions in supporting developing writers, and consideration of the systemic, organisational and practical requirements for the delivery of effective, individualised support within larger group teaching situations.

7.7 Educational implications

This study demonstrated that a basic level of competence with handwriting is required before children are able to compose something that they can read back and which can be accessed by a wider audience. This is contrary to the position of those researchers who argue for a reduced emphasis on presentational requirements, advocating that children should be encouraged to focus on the compositional aspects of writing from the outset (Graves,1983; Teale and Sulzby, 1989). The implication is that children should be provided with opportunities to learn and practice handwriting skills on a regular basis from early in their educational careers.

Motivated, enthusiastic pupils whose teachers considered them easy to teach were better writers at outcome. One of the implications of this finding is that capturing a child's interest and enjoyment may be the key to promoting writing development, and educators need to be aware of the desirability of providing tasks that pupils perceive as purposeful and valuable.

Teacher Questionnaire 2 sought information about curriculum emphases, in particular data relating to how much time pupils spent writing and what form this took. The results were

difficult to interpret, but there was evidence from the pupils' books that writing experiences were limited, and that continuous, extended or sustained opportunities for writing only occurred once a week at the most. This is in line with the findings of Webster et al. (1996) reported in Chapter 1. Perera (1986) argued that it is important that children are given the opportunity to produce continuous writing from a young age. The National Literacy Strategy has attempted to document what must be learned about writing including objectives relating to extended writing in Year 2 (NLS, 1998, p. 31). However, the structure of the hour has meant that sustained opportunities for writing are restricted, and in practice many writing tasks are brief, highly structured and take the form of generating words or sentences. Moreover, there is still a great deal of variation in how writing is approached within this time (Browne, 1999), although most schools have now abandoned writers' workshop sessions.

Certain pupils, like Michelle D (see Chapter 6, pp. 207-218) experienced extreme problems with learning to write. Her difficulties were apparent from the start of her schooling and were highlighted by the entry skills assessment. However, she did not experience any regular, targeted teaching support, and writing tasks devised for the whole class were not differentiated appropriately for her. At the time of the study, there was no evidence of procedures being in place in School 2 that would lead to the identification of her needs in spite of the implementation of the Code of Practice on the Identification and Assessment of Special Educational Needs in September 1994.

There is a small body of research that has sought to identify effective methods of teaching writing for pupils experiencing difficulties. This study indicated that there is a need to raise teacher awareness about such methods, in order to equip them to support and extend the learning of pupils like Michelle D. Englert et al. (1991) concluded that successful programmes involved what they termed an 'integrated approach to instruction', that is the teaching of explicit strategies (e.g. error monitoring, sentence writing) within the context of

the writing process, rather than teaching discrete sub-skills separately and sequentially. The process described by Englert et al. involves a high level of dialogue and structure surrounding holistic writing tasks, with opportunities for collaborative writing.

Harris and Graham (1992) advocated a teaching approach that they called 'self-regulated strategy development' for pupils with learning difficulties, arguing that they require explicit, structured teaching of writing strategies. This approach involves the identification of strategies that are appropriate for an individual pupil, and the use of flexible, adjustable teacher advice and coaching. Collaboration between teacher and pupil and adjusted use of scaffolding are central to this process, and strategies are taught and developed within the context in which they will be used, so they should be seen as relevant. Harris and Graham reported that strategy instruction made the processes more explicit and led to the marked improvement in writing performance of pupils who had been participating in writers' workshop for several years.

Chapter 6 detailed the cursory nature of teachers' comments about the writing pupils produced, and the paucity of social interactions around writing. Teachers' statements tended to be focused on the secretarial aspects, quantity of output or practicalities of the classroom. There is evidence that this is not the most productive and purposeful way of offering pupils feedback, and that comments about the content of writing should precede discussion about other aspects, to communicate the significance and value that the content commands (Browne, 1999).

These findings indicate that there is a need to develop and extend teachers' expertise in planning, modeling, supporting and giving feedback to pupils, and this could be achieved through the development and delivery of in-service training programmes.

It has been shown that those parents who appeared to actively support and engage in joint writing activities (as indicated by the home writing variable) had children who were more

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successful writers. An implication of this finding is that it may be possible to raise levels of achievement by creating opportunities for more parents to write regularly with their children. At present almost all literacy focused home-school contact is centred on reading and very little advice is provided about the best ways parents can assist and support writing development (Hannon, 1995). There is a lost opportunity for parents to be guided in the ways in which they help their children with writing and it may be appropriate for nurseries and schools to consider ways of achieving this. Good, regular communication about writing activities would also serve to develop mutual understandings and support. As Shook, Marrion and Ollila (1989) state:

> "The interest that parents and teachers show in a child's writing and their respect for the child as a writer demonstrate the importance of the writing process in the life of the child."

<div align="right">(Shook, Marrion and Ollila, 1989, p. 138)</div>

Improved home-school communication about writing and its place and purpose within the context of the child's overall development may help parents to understand the emphasis of teaching. Evidence from the parental questionnaires showed that many parents were taught handwriting skills in a formal and direct manner and the importance of presentation was strongly emphasised. Unless they are informed otherwise, they may be inclined to judge their own children's written productions by the same criteria, and convey a message that is in conflict with that of the school.

Another finding from the quantitative aspect of the study relates to the disadvantage experienced by pupils born in the summer term. The implications of this are two-fold. First, there is a need for LEAs to review their arrangements for school admission and formulate policies in the light of the best practice indicated by research evidence. Second, schools need to review their systems and consider ways that summer born children can be most appropriately supported once in school. Decisions about class and group configuration and size, allocation of staff, and curriculum organization and delivery need to

be made with this group in mind.

7.8 Strengths and limitations of the study

The study was a detailed and broad based one, and the writing of a group of 60 pupils was researched using a longitudinal design. Because of the naturalistic emphasis, the results are directly related to the home or classroom experiences of the children studied and have a pragmatic utility and interpretability. The qualitative data was used to triangulate, illustrate and clarify the quantitative data (Denzin, 1970) and the increased depth is the main strength of using a combination of research methods. The study was effective in addressing the research questions and the findings are informative when considering the range of writing skills and aptitudes and how these can be accommodated within the writing curriculum at KS1.

One of the limitations of the study relates to data collection methods. For example, the fact that writing samples were not produced under controlled, experimental conditions meant that there were variations between the prompts and support received and so clear, direct comparisons cannot reliably be made within and between writing samples produced. Techniques to systematise data collection and standardise evidence between all participants would have enabled more generalisations to be drawn from the writing sample data.

The writing samples were used to assess pupils' writing competence across a range of criteria each term, and the reliability of the judgements made by two raters calculated using Cohen's kappa (see Appendix X). All of the kappas were positive and the majority were statistically significant, an indicator that the agreements were on the whole, reliable. The best levels of agreement related to the organisation criteria and this was reflected in kappas ranging from .76 to 1.0. The kappas on the handwriting criteria were acceptable at all data collection points except at T4 (the fourth term), although the two raters agreed on 80% of

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their judgements and the significance level (p < 0.09) indicates that the agreements were not obtained by chance. However, some of the kappas were lower than desirable, and on certain criteria (e.g. form) they were unacceptably low, indicating that the two raters were not using the scoring scale in the same way. This may have occurred because the descriptive statements were interpreted slightly differently, or because some of the writing samples demonstrated evidence of more than one level. These statements were derived directly from the descriptors on which teachers base their SATs writing assessments and there is therefore a concern that this finding may indicate weak reliability in the root SATs measure.

The qualitative data was limited, particularly with regard to exploring the fifth research question addressing the relationship between school variables and writing at outcome. The observational data did not focus sufficiently on environmental and contextual issues and the methodology did not enable a detailed consideration of the nature of interactions around writing and their role supporting the child's development. More detailed teacher and pupil interviews would have provided data that would have illuminated an understanding of the processes surrounding writing in school, and identified themes that were not tapped by the data collection methods selected. Combined with more detailed observational data, additional interview data would have provided the opportunity for certain significant variables identified in the quantitative study to be explored in more detail (e.g. teacher assessment of the pupil's attitude to writing). Consideration of the bases on which teacher's make these judgements and the pupil behaviours they are associated with could then have been undertaken.

The lack of pupil interviews meant that it was not possible to confirm whether the pupils agreed with their teachers' assessments about their writing attitudes and abilities. There is evidence that younger pupils can overestimate their abilities (Blatchford, 1992), as can pupils with learning difficulties (Graham et al., 1993). However, pupil interviews could

have provided qualitative data that would have enabled exploration of self-perception and attitudes towards writing from an individual pupil perspective.

The information obtained about the curriculum was limited due to the sampling method (teacher's self-report) and so a detailed understanding of how the task environment interacts with the individual has not been developed. It was not possible to consider the writing development of the most able pupils as the negatively skewed nature of the sample meant that no child achieved Level 3 in the KS1 writing SAT. Issues of cultural or social diversity were not focused upon in the study and so have not been discussed in relation to children's writing development. Follow up parental interviews were not conducted, so it was not possible to comment on the impact of schooling on home variables.

Finally, the relationship between reading, writing development and progress was not addressed, and this has meant that it has not been possible to interpret the data in the fullest sense.

7.9 Future research

This study has provided data that has allowed consideration of the factors that drive and influence writing development in young children. The longitudinal design enabled the progress of a group of children to be tracked over time and future work would benefit from a similar approach, but should involve a larger sample size. There is a need for further research to look in more detail at some of the significant variables identified in this study.

For example, further investigation of the home writing variable could lead to a clearer definition of the precise nature of the support with writing provided in certain families which appears to have sustained benefits for certain children.

The implementation of the National Literacy Strategy has meant that classroom practices

are now more standardised. This will enable future research studies to retain a naturalistic emphasis, obtaining data that directly relates to children's experiences, but controlling more variables through quasi-experimental research designs. It will then be possible to consider questions relating to curriculum emphasis more effectively e.g. the relationship between individual pupil cognitive profiles, learning styles and aspects of the writing curriculum.

There is a need for future research to consider writing assessment issues. The difficulties encountered when making judgements based on evidence from children's writing samples have been highlighted, and these reflect the more general problems experienced by researchers and educators in evaluating and assessing writing. Future work on developing a reliable writing sample scoring system would involve tightening up descriptive statements, to improve levels of agreement between raters. A more reliable, robust system would have benefits for researchers, but could be also used by practitioners. There is evidence that many teachers are unclear about how to approach the assessment of writing and the emphasis to award its different components. Improved understandings of the links between assessment, teaching and curriculum planning would inform intervention and needs to be researched in more detail.

Future research is also required to consider how ICT can effectively be used to support developing writers. Rapidly advancing technology has meant that computers are commonplace in classrooms, but their effective use in teaching writing is restricted. It is important for educational, psychological and developmental considerations to be incorporated in systems designs and for new products to be fully evaluated. Questions relating to factors that facilitate the effective use of ICT in teaching writing need to be addressed.

This study illustrated how minimal teacher-pupil interactions around literacy tended to be. Although it is likely that the Literacy Hour has increased and improved the quality of these

interactions for many, there is a need for these processes to be systematically evaluated. Questions about the nature of effective transactions around writing and the incidence and nature of scaffolding could be addressed through qualitative research methodology, using a combination of observational and interview data. Such data would be strengthened by triangulation with quantitative measures.

A fundamental set of questions needs to be asked relating to the association between reading and writing and how they drive and influence each other. The Ofsted (1999) data highlighted the lag of writing skills behind reading and should to be considered within a developmental context – does this lag exist because of poor teaching and inappropriate curriculum emphasis, or are other, more subtle factors exerting an influence? Research should clearly identify the developmental nature of writing, and the fact that a feature of the complex interaction of processes is that different components of the system may be more or less significant at different times in a pupil's school career.

7.10 Conclusion

This research produced a comprehensive account of writing before school and through KS1. The complexity of writing development has been discussed within the context of social, educational, cultural and political influences. It is important that children are provided with purposeful, interesting, authentic writing tasks that are sufficiently differentiated, building on their experiences and tapping into their knowledge bases. Effective teaching needs to occur from the outset and children with difficulties need to be detected early and given extra assistance as appropriate. There are implications for improving the dissemination of knowledge about development and effective practices in teaching writing, amongst those involved with the child – parents, teaching assistants, teachers and educational psychologists.

Being able to write well is a skill that is likely to confer increasing economic advantages, as the service sector continues to grow rapidly in Britain in the twenty-first century. If it is accepted that a primary aim of an educational system is to equip its pupils to meet the needs of society, then there will be a continuing emphasis on improving literacy rates in the population and producing more individuals who write well, for a range of purposes. There is a continuing need to reappraise existing structures and systems to ensure that learning to write is not a tedious, onerous experience but one that is positive, functional and fun.

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APPENDIX A

Parental Questionnaire

Child's Name_____

Date of Birth_____

Names of Guardians/Parents_____

_____

Address_____

_____

Telephone number_____

Parental Occupations_____

Parental Educational Qualifications_____

Family Grouping_____

Prospective school_____

Entry Date_____

Playgroup/Nursery attendance_____

Other child-care arrangements_____

_____

List writing materials available in the home by code number:

_____

_____

PARENTAL INTERVIEW

A) Which of the following can your child do?

(use observation to establish if necessary)

	Yes	Emerging	No
1. Attributes meaning to own marks, drawings or scribbles, e.g. "that says..."			
2. Writes on or marks appropriate surfaces, e.g. paper, blackboard as opposed to wall, clothes, skin			
3. Recognises when someone is writing			
4. Asks adult to draw or write			
5. Asks adult to write a message			
6. Pretend-writes messages for others			
7. Uses pictures, symbols or isolated letters, words or phrases to communicate meaning			
8. Writes their name using model			
9. Writes their name without model			
10.			
11.			
12.			

Record any additional observations or comments about the child's development as a writer.

Which activities do you think are particularly important for children who are beginning to write?

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1) What kind of writing does your child see you doing and how often?

2) What are your earliest memories about being taught to write? What methods were used?

3) How did you feel about writing when you were at school? Did you have any particular problems?

4) Other significant notes about the writing development/experience of other members of the family.

5) What do you expect your child to be able to do with regard to writing by the time they reach adulthood?

APPENDIX B

Educational Qualifications

	Mother	Father
Qualifications in shorthand and/or typing, trade apprenticeships, or other vocational training e.g. State Enrolled Nurse (SEN) or Enrolled Nurse (Scotland), hairdressing diploma, etc.	1	1
GCE 'O' level, SCE 'O' grade. Certificate of Secondary Education (CSE), City and Guilds Intermediate Technical Certificate, City and Guilds Final Craft Certificate	2	2
GCE 'A' level, High School Certificate (HSC), Higher grade of Scottish Leaving Certificate (SLC), Ordinary National Diploma/ Certificate (OND, ONC) City and Guilds Final Technical Certificate, Higher Grade of Scottish Certificate of Education (SCE)	3	3
State Registered Nurse (SRN) or Registered Nurse (Scotland)	4	4
Certificate of Education (Teachers), Teaching Qualification (Primary/Secondary Education in Scotland)	5	5
Degree (e.g. BSc, BA, PhD), Higher National Diploma/Certificate (HND, HNC) Membership of Professional Institutional (e.g. FCA, FRICS, MIMechE, MIEE, etc) City and Guilds Full Technical Certificate	6	6
Other qualifications, please specify	7	7
No qualifications	8	8
Not applicable, no mother or no father figure	9	9
Qualifications not known	0	0

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Resource list

Which of the following do you have at home?

1. Felt pens
2. Wax crayons
3. Chalks
4. Pencils
5. Biros
6. Paints
7. Charcoal
8. Paper
9. Card
10. Chalk board
11. White board
12. Easel
13. Magnetic letters
14. Foam letters
15. Stencils
16. Work cards
17. Work books
18. Colouring books
19. Scrap books
20. Magna doodle
21. Etch-a-sketch
22. Tracing paper
23. Printing set
24. Typewriter
25. Computer
26. Other

APPENDIX D

Attitude Questionnaire Version 1

To what extent do the following statements describe you and your views?

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Parents should back up the school's writing practices at home.				
2. The presentation is less important than the content of writing.				
3. The only way to learn to write is to be taught the individual skills one at a time.				
4. Children start to learn to write before they begin school.				
5. Writing is boring.				
6. It is not necessary for children to appreciate the purpose of individual writing activities.				
7. The value of a piece of writing is diminished by poor presentation.				
8. There is little that parents can usefully do to back up school writing practices.				
9. All children should be given lists of spellings to learn at school.				
10. Teaching writing should be left to schools.				
11. Writing is interesting.				
12. Correct spelling should always be insisted upon.				
13. The importance of good writing is over-rated.				
14. Providing children with writing experiences is insufficient to develop skills.				

	Strongly Agree	Agree	Disagree	Strongly Disagree
15. It is unimportant for pre-school children to write.				
16. Children should be encouraged to copy underneath a model when they start to write.				
17. Neat handwriting is very important.				
18. Parents should not be expected to show their children how to write.				
19. Children will learn to write given the appropriate experiences.				
20. Teaching writing skills one at a time inhibits development.				
21. Children will only produce their best writing when they stop worrying about correct spelling.				
22. Teachers alone cannot teach writing.				
23. Writing is rarely rewarding.				
24. Writing should be given maximum importance by schools.				
25. Parents should make time to show their children how to write.				
26. Spelling should be taught without learning lists.				
27. Children must understand the purpose of their writing.				
28. Neat handwriting is not that important.				
29. Writing is given too much emphasis in schools.				
30. Producing a piece of writing is very rewarding.				
31. Children should learn to write without copy writing.				
32. Being able to write well is an important skill in life				

APPENDIX E

Attitude Questionnaire Version 2

To what extent do the following statements describe you and your views?

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. The presentation is less important than the content of writing.				
2. The only way to learn to write is to be taught the individual skills one at a time.				
3. It is not necessary for children to appreciate the purpose of individual writing activities.				
4. The value of a piece of writing is diminished by poor presentation.				
5. Teaching writing should be left to schools.				
6. Correct spelling should always be insisted upon.				
7. The importance of good writing is over-rated.				
8. Providing children with writing experiences is insufficient to develop skills.				
9. It is unimportant for pre-school children to write.				
10. Children should be encouraged to copy underneath a model when they start to write.				
11. Neat handwriting is very important.				

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	Strongly Agree	Agree	Disagree	Strongly Disagree
12. Parents should not be expected to show their children how to write.				
13. Children will learn to write given the appropriate experiences.				
14. Teaching writing skills one at a time inhibits development.				
15. Children will only produce their best writing when they stop worrying about correct spelling.				
16. Teachers alone cannot teach writing.				
17. Spelling should be taught without learning lists				
18. Neat handwriting is not that important.				
19. Children should learn to write without copy writing.				
20. Being able to write well is an important skill in life				

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APPENDIX F

Attitude Questionnaire Version 3

To what extent do the following statements describe you and your views?

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. The presentation is less important than the content of writing.				
2. The importance of good writing is under-rated.				
3. Children will not learn to write just by being exposed to appropriate experiences.				
4. It is not necessary for children to appreciate the purpose of writing.				
5. Children will only produce their best writing when they concentrate on correct spelling.				
6. Teaching writing should just be left to schools.				
7. Correct spelling should always be insisted upon.				
8. The importance of good writing is over-rated.				
9. Children should learn to write by copy writing.				
10. It is unimportant for pre-school children to write.				
11. Teachers alone can teach writing.				
12. Neat handwriting is very important.				

	Strongly Agree	Agree	Disagree	Strongly Disagree
13. Parents should not be expected to show their children how to write.				
14. Children will learn to write just by being exposed to the appropriate experiences.				
15. Correct spelling should not always be insisted upon.				
16. Children will only produce their best writing when they stop concentrating on correct spelling.				
17. Teachers alone cannot teach writing				
18. Spelling should be taught without learning lists				
19. Neat handwriting is not that important.				
20. Children should learn to write without copy writing.				
21. Being able to write well is extremely important.				
22. The presentation is more important than the content of writing.				
23. Teaching writing should not just be left to schools.				
24. Spelling should be taught by learning lists.				
25. It is important for pre-school children to write.				
26. It is necessary for children to appreciate the purpose of writing				
27. Being able to write well is not that important.				
28. Parents should be expected to show their children how to write				

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APPENDIX G

Diary Record

This record should be kept for 7 consecutive days. Please tick the box alongside any writing activity that you observe your child undertaking. Assume that each box represents a period of up to 5 minutes (hence if you spend 14 minutes, tick 3 boxes). You may make your record in Section 1, Section II, or both. Please add any activities not included. Write any comments on the reverse of this sheet. Thank you.

Section I

1. Write lists																						
2. Write letters																						
3. Write cards (e.g. birthday)																						
4. Address envelopes																						
5. Write notes																						
6. Do crosswords																						
7. Fill out forms/coupons																						
8. Write stories																						
9. Label drawings																						
10. Write telephone messages																						
11. Write down their speech																						
12. Make posters/signs																						
13. Fill out diary																						
14. Label objects																						
15.																						
16.																						

Section II

1. Trace patterns																						
2. Trace letter shapes																						
3. Trace letters																						
4. Trace words																						
5. Copy patterns																						
6. Copy letters																						
7. Copy their name																						
8. Copy other words																						
9. Copy sentences																						
10. Write their name																						
11. Other child created writing (i.e. not copied or traced)																						

The Lamme/Green Scale of Children's Development in Composition (Green, 1987)

Precompositional

1. Scribbles

   Mock letters

   A few letters or numbers

   A small string of letters or numbers

2. Letters.

   Mock letters read as words

   Repeated groups of letters

   Incomplete alphabet or list of numerals

   One memorised or copied word

3. List of 2-10 words

   Mock words in long list (some phonetic relationship to word)

   Very hard to read message

   Complete alphabet (alone or with any of above)

   Word boundaries (spaces, dots, lines etc. to separate words)

Compositional

1. Simple message (I love you)

   List of 10 or more words (phonetic or memorised spelling)

   Complete alphabet with over 10 words

2. Original message (complete thought)

   Message of 2 or more sentences

   List of short sentences

   Short letter

3. Long story with plot (4 or more sentences)

   Long letter that sticks to subject

Ignore: name, reversals, play with print (decorating letters)

Ofsted descriptions of characteristics of the four Primary Schools involved in the Study

School 1 is a large school with a current roll of 411 pupils aged five to eleven years. There are 212 boys and 199 girls. These numbers include 35 reception-year children who are admitted to the school and begin their statutory education in the term after their fifth birthday. Although some local authority schools admit children the term before as 'rising fives', School 1 does not have the room to do this.

In addition to the primary school, there is an attached nursery for 52 children. They attend on a part-time basis from the age of 4 to the end of the school term in which they have their fifth birthday. Children initially attend the nursery for the afternoon sessions, changing to the morning sessions as they approach their fifth birthday. The vast majority of children in the nursery transfer to School 1 when they reach the appropriate age. The policy for admissions to the nursery and primary school is agreed with the local authority.

School 1 serves a large and varied residential area on the outskirts of Reading. A broad range of social and economic circumstances are found among the families who attend the school. Taken as a whole, the area could be described as neither advantaged nor disadvantaged.

Pupils at the school represent the full ability range and the proportion of pupils of high, average and lower ability is typical of those found nationally. However, there is a significant minority of pupils with special educational needs (SEN). An increasing proportion of pupils on the SEN register have emotional and behavioural problems. Twenty-four per cent of pupils have been identified as having SEN and 2% of pupils have statements, which is above the national average. The number of pupils eligible for free school meals (9.4%) is below average. There is an average percentage (1.2%) of pupils from minority ethnic backgrounds for whom English is not the first language.

School 2 was built in 1949 and shares the site with the junior school of the same name. There are currently 231 boys and girls on roll, including 52 children in the nursery who attend school part-time. Pupils enter the school in the term after their fifth birthday. The majority of pupils come from the school's own nursery, although around twenty seven percent of pupils enter from outside, with varying levels of pre-school experience. Parents are fully supportive of the attitudes and values taught by the school. A significant number of pupils are entitled to free school meals with a minority of pupils coming from different cultures. The make-up of the school population reflects the school's locality. Pupil's attainment on entry is generally below average.

Twenty-five percent of the pupils in full-time education are entitled to free school meals which is above the national average. The school has well established child protection procedures and parents support the view that the school is approachable with problems. Twenty-nine per cent of pupils are on the school's register of special educational needs. Fourteen of these pupils are at stage three and above of the Code of Practice for the identification of such pupils, with two having statements of special educational need. A

further nineteen children in the nursery are identified at stages one and two. A small number of pupils come from homes where English is an additional language and receive specialist help through Section 11 funding. There have been no exclusions in the past year.

School 3 is situated in an urban area within a large estate of local authority housing in the south of Reading. There are 241 children attending part-time in the nursery and 238 full-time pupils in the infant school. There is significant social and economic deprivation, with high levels of unemployment, and a large proportion of pupils from single parent families. There are 25 children in the nursery and 103 at Key Stage 1 who have been identified as having special educational needs. Eight of these pupils have Statements of Special Educational Need, and there are ten pupils for whom English is an additional language. Attainment on entry to the nursery is below average. The majority of pupils attend the nursery or have other pre-school provision.

School 4 is situated on the outskirts of Caversham, near Reading. The school has two designated catchment areas, a part of Caversham Heights and the more immediate areas around the school. Families live in privately owned and rented accommodation and pupils come from a wide range of social backgrounds.

Children join School 4 from a variety of nurseries and playgroups. There are currently 330 pupils on roll which includes five part-time pupils in the reception class. There are 13 classes and the average class size is 25 pupils. There are 65 pupils on the school's register of special educational needs which is below average, but six of these are statemented which is a high proportion. Forty pupils are eligible for free school meals. Seven pupils speak English as an additional language which is below national averages.

APPENDIX J

Entry skills assessment form

Name _____   Sex _____

Address _____

Parents' names _____

School _____   Class _____

	Year	Month	Day
Date of testing			
Date of birth			
Age			

1. BPVS (Short Form)	Raw Score	
	Standardised Score	
	Percentile Rank	
2. WPPSI-R (U.K.) Vocabulary	Raw Score	
	Scaled Score	
3. B.A.S. Verbal Fluency	Raw Score	
	Ability	
	Centile	
4. Concepts about Print	Test Score	____ /24
	Stanine group	
5. Letter Identification	Test Score	____ /54
	Stanine group	
6. B.A.S. Copying	Raw score	
	Ability	
	Centile	
7. Copying phrase	Score	
8. Writing name	Score	
9. Writing vocabulary	Test score	
	Stanine group	
10. Dictated story	Re-reading score	
Completeness of context score analysis:	(i) who	
	(ii) where	
	(iii) what	
	(iv) how	
	Story grammar classification level	

APPENDIX K

Copying Phrase – Directions and scoring criteria

Copying Directions: Present child with card showing 'On the ground' and ask him/her to copy it. Encourage some attempt at this task.

Scoring: **0**   No response or scribble.

    1   Only one recognisable/correct letter shape.

    2   Minority of letters correct and recognisable, but majority reversed/upside down/unrecognisable/omitted/in wrong order/substituted so that model could not be guessed.

    3   Half or more of letters correct/recognisable and in correct order but at least one reversed/upside down/omitted/ unrecognisable/wrongly placed, also size of letters incorrect (no differentiation capital/lower case or varied sizes) and/or base line is definitely not straight. Include here reversals, which are otherwise correct.

    4   All letters correct and recognisable and in right order, but size of letters varies and/or base line is definitely not straight and/or spaces not left between words.

    5   All letters correct and recognisable and in right order, size of letters reasonably constant, capitals and small letters differentiated in size, base line reasonably straight, spaces left between words.

APPENDIX L

Test of Writing Vocabulary

Directions

1. Give the child a blank piece of paper and a pencil and then say 'I want to see how many words you can write. Can you write your name?'

Scoring: Either upper or lower case letters are acceptable.

N.B. For long names, assess first 7 letters only.

Score: 0 No response, or random scribble.

1 Attempts at letter shapes, not more than one recognisable.

2 Random letters, may include some from name, initial letter may be correct.

3 Most of letters present, some letters omitted or substituted or reversed or misplaced.

4 All letters present but some or all reversed and/or one misplaced.

5 Name written correctly.

N.B. Letter formation is not taken into account.

2. Ask the child 'What else can you write?

Record writing responses in boxes on sheet along with verbal label.

Then ask the child,

Q1. How did you know what that was?

Q2. How did you learn that?

Q3. How do you think grown ups learned to write?

3. When the child reaches a point where they need prompting, suggest words that he might know how to write.

'Do you know how to write I or a ?'

'Do you know how to write is or to ?'

Go through a list of basic vocabulary that the child would have met in his reading books - the, in, at, am, on, up, and, go, look, come, here, this, me, he, we, Mummy, Daddy, car, for.

It may be helpful to suggest a category of words.

'Do you know how to write any other names of children like Tom, Lucy?'

'Do you know how to write your colour words like the word red?'

(Number, days of the week, months of the year etc.)

Scoring

Each word completed accurately is marked as correct (include one mark for their name, if appropriate) . If the child accidentally writes a word that is correct but reads it as another word, or does not know what it is that word is scored an error. Words written in mirror image are scored as correct only if the child actually wrote them in the correct sequence. Groups of words such as look, looks, looked, looking, and sad, fat, mat, hat, are allowed as separate words.

Test of Writing Vocabulary Score sheet

WRITING	LABEL
1.	
2.	

Record responses to:

Q1. How did you know what that was?

Q2. How did learn that?

Q3. How do you think grown ups learned to write?

Test Score _____

Stanine Group _____

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APPENDIX M

Dictated story task

DICTATION

Directions

Say to the child 'I am going to help you to write a story. I know you don't really know how to write like a grown up yet, but you know a lot about writing. One way to write a story is to get someone else to write it down for you. It's like having a secretary, and we call it dictation.

I want you to dictate your story to me. It's a story about something that happened at play-time. Remember to tell me WHO was there, WHAT was being played, HOW it was being played and WHERE it all happened.

Repeat the who, what, how and where criteria twice more.

Then write down the child's dictated story on a sheet of A4 paper.

Re-reading directions

'Well done. Now I want you to read back your story to see if it is just like you want it to be.'

If the child says they cannot read, ask what help they would like.

If the child does not specify the kind of help, but still says they can't read, initiate paired reading, and fade prompt to see if the child can use memory for text to continue without help.

Editing directions

The child may make voluntary changes during or following composition, and this should be recorded by crossing out and writing above.

When the child has completed dictating, ask:

'Is this story just the way you want it?

How about this part?

Is it like you want it?

Why?

How else could you have made it?

SCORING

Re-reading dictation

1. The child did not dictate in response to the request. Thus there is also no attempt to re-read.

2. When dictating, the child's speech has characteristics of conversational turn-taking. The child may refuse to re-read or re-read with need for conversational elicitations.

3. Child dictates story but refuses to re-read.

4. Child attempts to re-read dictation but does not keep eyes on print. The story recited is similar to the original production, but is not stable with it. (Stable means that no clause level units have been added, omitted or placed out of composed sequence).

5. When the child cannot keep eyes on print and recite a stable story at once.
   - either the child's eyes are on print but the story recited is similar to original but not stable with it
   - or the child's eyes are not on print but the story recited is stable with original.

6. Child's eyes are on print but the child is not tracking the print visually. The story recited is stable with the original composition.

7. Child's eyes are tracking print and child is matching voice to print.

Scoring dictated stories

Completeness of context analysis

1. WHO

0 - There is no reference to the participants at all.

1 - The participants are referred to with an indefinite pronoun.

2 - The participants are adequately specified with the child providing at least the first names of all the participants (e.g. 'I played with Sally'), although the child has not specified his relationship to that person. In addition, this category includes unspecified pronouns whose identity is easily inferred because of our shared assumptions about the world. For example, if a child said that "we" went to the toilet, the 'we' is likely to refer to other children.

3 - The participants are fully specified, with the child embedding all of the participants in the context of their relationship with the child (e.g. my friend Charlotte).

2. WHERE

0 - No specification or a confused specification.

1 - Partial specification e.g. 'we play outside'.

2 - Adequate specification e.g. 'we go to the playground/hall'.

3 - Full specification, with detail e.g. 'we play on the field at the back of the school'.

3. WHAT

0 - No specification or confused specification.

1 - Partial specification includes referring to a game/activity/toy with the indefinite pronoun 'it'.

2 - Full specification includes naming of games/activities/toys.

4. HOW

0 - Confused, so the reader could not understand what occurred.

1 - Incomplete, or missing important information in terms of the actions that occurred.

2 - Complete, or fully comprehensible to the listener.

Story grammar classification

1. No story

2. Descriptive sequences

   contain a description of habitual states, surroundings and acts which are not goal-directed.

3. Action sequences

   may have occasional goals, but these are locally attatched to actions and are not goals for larger structures.

4. Reactive sequences

   where events seem to happen to the protagonist rather than being actions planned by the protagonist. There is a change of state and a causal relationship between events and their outcomes, but no evidence of the protagonist's role.

5. Incomplete episode

   contains a goal and implies, but does not describe, planful behaviour. Also the consequence may be sketchy and there is no reaction.

6. Simple episode

   contains a goal and describes planful behaviour. The consequence seems to have a more legitimate status.

7. Complete episode

   consists of setting, initiating event, internal response, attempt, consequence and reaction.

8. Multi-episode

   where a number of episodic structures can be linked and embedded to form larger multi-episode units.

APPENDIX N

Teacher Questionnaire 1

Teacher's name: Class:

Child's name: School:

---

1. How do you assess the child's spoken language?

Below average   Average   Above average

2. How do you assess the child's language comprehension?

Below average   Average   Above average

3. How do you assess the child's reading?

Below average   Average   Above average

4. How do you assess the child's writing?

Below average   Average   Above average

5. How do you assess the child's intelligence?

Below average   Average   Above average

6. How easy is the child to teach to write?

Below average   Average   Above average

7. How well does the child concentrate on a writing task?

Below average   Average   Above average

8. How do you assess the child's enjoyment of writing?

Below average   Average   Above average

9. How do you assess the back-up from home?

Below average   Average   Above average

10. What are your expectations for the child's future writing development?

Below average   Average   Above average

APPENDIX O

Teacher Questionnaire 2

Name:

School:

Age:

Year teacher training completed:

No. years teaching:

Age groups taught:

Any other relevent info. about background/experience:

Briefly describe how you approach the teaching of writing (mentioning the resources you use):

Please estimate the frequency each child undertakes the following tasks and code as follows:

1 = Daily;   **2** = 2-3 times per week;   **3** = Weekly;   **4** = 2-3 times monthly;
5 = Monthly or less;   **6** = Never

Writing tasks	Frequency		Frequency
Workcards/workbooks		Spelling practice	
Descriptive writing		Greeting cards	
Story writing		Labelling pictures	
"News" writing		Writing poems/plays	
Handwriting practice			

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APPENDIX P

Writing Checklist

Date when skill emerging (E) or mastered (M)	E	M
1. Attributes meaning to own marks, drawing or scribbles, eg "that says..."		
2. Writes on or marks appropriate surfaces, e.g. paper,blackboard as opposed to walls, clothes, skin		
3. Recognises when someone is writing		
4. Asks adult to draw or write		
5. Asks adult to write a message		
6. Pretend writes messages for others		
7. Uses pictures, symbols, or isolated letters, words or phrases to communicate meaning		
8. Traces over name to label drawing		
9. Copies name to label picture		
10. Labels drawing with own name, without model		
11. Can use word cards or word bank/folder to construct and then copy out simple sentences		
12. Can complete a simple stem sentence/close task appropriately, given a choice of key vocabulary		
13. Copies adult captions to drawings		
14. Dictates writing to adult then copies adult's model		
15. Copies accurately from work card, captions or blackboard		
16. Generates simple sentences with adult help, beforehand, e.g. brainstorming ideas , supplying some vocabulary		
17. Takes part in joint composition, e.g. using word processor		
18. Writes with some awareness of the sentence as a writing unit of meaning		

Date when skill emerging (E) or mastered (M)	E	M
19. Writes a simple sentence starting with a capital letter and ending with a full stop		
20. Uses question marks appropriately		
21. Independently produces simple sentences, some demarcated with capital letters, full stops or question marks		
22. Sequences a simple picture series to make a story		
23. Contributes ideas towards a class story, e.g. alternative beginning or ending		
24. Writes a short story or sequence of ideas with adult support		
25. Reviews own writing with adult help to correct		
26. Creates own stories showing rudiments of story structure, e.g. beginning, characters, action		
27. Writes a chronological account of events e.g. family holiday, school trip		
28. Produces simple coherent, non-chronological writing, e.g. lists, notices, invitations		
29. Writes for a range of functions, including making lists, sending letters, cards and invitations, notices, stories, poems		
30. Express own feelings and opinions in writing		
31. Uses complex sentence structures in writing, with some grammatical errors		
32. Writes extended stories with structure, including setting, feelings of character and clear ending		
33. Extends sentences using simple connectors, e.g., and, but		
34. Writes independently for a wide range of functions, including stories, making notes, plans and diagrams		

APPENDIX Q

Writing checklist – Liam M

Key: E = Emerging skills; M = Mastered skills, represented by shaded boxes

	30-Nov-94		1-Mar-95		26-Jun-95		8-Nov-95		6-Mar-96		5-Jun-96	
	E	M	E	M	E	M	E	M	E	M	E	M
1 Attributes meaning to own marks, drawing or scribbles, eg "that says…"												
2 Writes on or marks appropriate surfaces, e.g. paper,blackboard as opposed to walls, clothes, skin												
3 Recognises when someone is writing												
4 Asks adult to draw or write												
5 Asks adult to write a message												
6 Pretend writes messages for others												
7 Uses pictures, symbols, or isolated letters, words or phrases to communicate meaning												
8 Traces over name to label drawing												
9 Copies name to label picture												
10 Labels drawing with own name, without model												
11 Can use word cards or word bank/folder to construct and then copy out simple sentences												
12 Can complete a simple stem sentence/close task appropriately, given a choice of key vocabulary												

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	30-Nov-94		1-Mar-95		26-Jun-95		8-Nov-95		6-Mar-96		5-Jun-96	
	E	M	E	M	E	M	E	M	E	M	E	M
13 Copies adult captions to drawings												
14 Dictates writing to adult then copies adult's model												
15 Copies accurately from work card, captions or blackboard												
16 Generates simple sentences with adult help, beforehand, e.g. brainstorming ideas , supplying some vocabulary												
17 Takes part in joint composition, e.g. using word processor												
18 Writes with some awareness of the sentence as a writing unit of meaning												
19 Writes a simple sentence starting with a capital letter and ending with a full stop												
20 Uses question marks appropriately												
21 Independently produces simple sentences, some demarcated with capital letters, full stops or question marks												
22 Sequences a simple picture series to make a story												
23 Contributes ideas towards a class story, e.g. alternative beginning or ending												
24 Writes a short story or sequence of ideas with adult support												
25 Reviews own writing with adult help to correct												
26 Creates own stories showing rudiments of story structure, e.g. beginning, characters, action												
27 Writes a chronological account of events e.g. family holiday, school trip												

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	30-Nov-94		1-Mar-95		26-Jun-95		8-Nov-95		6-Mar-96		5-Jun-96	
	E	M	E	M	E	M	E	M	E	M	E	M
28 Produces simple coherent, non-chronological writing, e.g. lists, notices, invitations												
29 Writes for a range of functions, including making lists, sending letters, cards and invitations, notices, stories, poems												
30 Express own feelings and opinions in writing												
31 Uses complex sentence structures in writing, with some grammatical errors												
32 Writes extended stories with structure, including setting, feelings of character and clear ending												
33 Extends sentences using simple connectors, e.g., and, but												
34 Writes independently for a wide range of functions, including stories, making notes, plans and diagrams												

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APPENDIX R

Writing checklist – Michelle D.

Key: E = Emerging skills; M = Mastered skills, represented by shaded boxes

	24-Mar-94		8-Jul-94		12-Dec-94		10-Mar-95		4-Jul-95	
	E	M	E	M	E	M	E	M	E	M
1 Attributes meaning to own marks, drawing or scribbles, eg "that says..."										
2 Writes on or marks appropriate surfaces, e.g. paper,blackboard as opposed to walls, clothes, skin										
3 Recognises when someone is writing										
4 Asks adult to draw or write										
5 Asks adult to write a message										
6 Pretend writes messages for others										
7 Uses pictures, symbols, or isolated letters, words or phrases to communicate meaning										
8 Traces over name to label drawing										
9 Copies name to label picture										
10 Labels drawing with own name, without model										
11 Can use word cards or word bank/folder to construct and then copy out simple sentences										
12 Can complete a simple stem sentence/close task appropriately, given a choice of key vocabulary										

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	24-Mar-94		8-Jul-94		12-Dec-94		10-Mar-95		4-Jul-95	
	E	M	E	M	E	M	E	M	E	M
13 Copies adult captions to drawings										
14 Dictates writing to adult then copies adult's model										
15 Copies accurately from work card, captions or blackboard										
16 Generates simple sentences with adult help, beforehand, e.g. brainstorming ideas , supplying some vocabulary										
Takes part in joint composition, e.g. using word processor										
18 Writes with some awareness of the sentence as a writing unit of meaning										
19 Writes a simple sentence starting with a capital letter and ending with a full stop										
20 Uses question marks appropriately										
21 Independently produces simple sentences, some demarcated with capital letters, full stops or question marks										
22 Sequences a simple picture series to make a story										
23 Contributes ideas towards a class story, e.g. alternative beginning or ending										
24 Writes a short story or sequence of ideas with adult support										
25 Reviews own writing with adult help to correct										
26 Creates own stories showing rudiments of story structure, e.g. beginning, characters, action										

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	24-Mar-94		8-Jul-94		12-Dec-94		10-Mar-95		4-Jul-95	
	E	M	E	M	E	M	E	M	E	M
27 Writes a chronological account of events e.g. family holiday, school trip										
28 Produces simple coherent, non-chronological writing, e.g. lists, notices, invitations										
29 Writes for a range of functions, including making lists, sending letters, cards and invitations, notices, stories, poems										
30 Express own feelings and opinions in writing										
31 Uses complex sentence structures in writing, with some grammatical errors										
32 Writes extended stories with structure, including setting, feelings of character and clear ending										
33 Extends sentences using simple connectors, e.g., and, but										
34 Writes independently for a wide range of functions, including stories, making notes, plans and diagrams										

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APPENDIX S

Writing checklist – Kieran M

Key: E = Emerging skills; M = Mastered skills, represented by shaded boxes

	5-Jul-94		23-Nov-94		30-Mar-95		7-Jul-95		15-Nov-95		28-Feb-96		6-Jun-96	
	E	M	E	M	E	M	E	M	E	M	E	M	E	M
1 Attributes meaning to own marks, drawing or scribbles, eg "that says..."														
2 Writes on or marks appropriate surfaces, e.g. paper,blackboard as opposed to walls, clothes, skin														
3 Recognises when someone is writing														
4 Asks adult to draw or write														
5 Asks adult to write a message														
6 Pretend writes messages for others														
7 Uses pictures, symbols, or isolated letters, words or phrases to communicate meaning														
8 Traces over name to label drawing														
9 Copies name to label picture														
10 Labels drawing with own name, without model														

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	5-Jul-94		23-Nov-94		30-Mar-95		7-Jul-95		15-Nov-95		28-Feb-96		6-Jun-96	
	E	M	E	M	E	M	E	M	E	M	E	M	E	M
11 Can use word cards or word bank/folder to construct and then copy out simple sentences														
12 Can complete a simple stem sentence/close task appropriately, given a choice of key vocabulary														
13 Copies adult captions to drawings														
14 Dictates writing to adult then copies adult's model														
15 Copies accurately from work card, captions or blackboard														
16 Generates simple sentences with adult help, beforehand, e.g. brainstorming ideas, supplying some vocabulary														
17 Takes part in joint composition, e.g. using word processor														
18 Writes with some awareness of the sentence as a writing unit of meaning														
19 Writes a simple sentence starting with a capital letter and ending with a full stop														
20 Uses question marks appropriately														
21 Independently produces simple sentences, some demarcated with capital letters, full stops or question marks														
22 Sequences a simple picture series to make a story														

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	5-Jul-94		23-Nov-94		30-Mar-95		7-Jul-95		15-Nov-95		28-Feb-96		6-Jun-96	
	E	M	E	M	E	M	E	M	E	M	E	M	E	M
23 Contributes ideas towards a class story, e.g. alternative beginning or ending														
24 Writes a short story or sequence of ideas with adult support														
25 Reviews own writing with adult help to correct														
26 Creates own stories showing rudiments of story structure, e.g. beginning, characters, action														
27 Writes a chronological account of events e.g. family holiday, school trip														
28 Produces simple coherent, non-chronological writing, e.g. lists, notices, invitations														
29 Writes for a range of functions, including making lists, sending letters, cards and invitations, notices, stories, poems														
30 Express own feelings and opinions in writing														
31 Uses complex sentence structures in writing, with some grammatical errors														
32 Writes extended stories with structure, including setting, feelings of character and clear ending														
33 Extends sentences using simple connectors, e.g., and, but														
34 Writes independently for a wide range of functions, including stories, making notes, plans and diagrams														

APPENDIX T

Name _____   Date _____

Class _____   School _____

<u>Writing Episode Observation Form</u>

KEY:

Column 1	Column 2	Column 3

Column 1

Write down words produced by child.

Underneath write numerals

1-2-3-4 - to indicate writing sequence.

//// erasure or proof reading.

Column 2

Top - time to start

Bottom - time to finish

Code to accompany writing :-

T - teacher involvement

IS - interruption solicited

IU - interruption unsolicited

RR - reread

PR - proofread

DR - works on drawing

R - resource use.

Accompanying language:-

OV - Overt

WH - Whispering

F - Forms letters and words

M - Murmuring

S - No overt language

Column 3

4 - Circle number, and explain item on comment column.

APPENDIX U

Writing observational records and associated samples

TABLE U.1

Name Liam M (1)   **Date**   3/5/95
Age   6.3 years   **School 4**

WRITING OBSERVATION

	9.45 am	
Liam I wet ~~to~~ to 1 2 3 ④	S R	4 – ///
the purck wev ⑤ 6 7	IS	5 – "Where's Park?" Looking through word-book
mulu fue's to hav a 8 9 10 11 12	RR	
pick nick I went to the 13 14 15 16 17 18	PR	
toy soop and I Bot a 19 20 21 22 23 24		
BoD a cru cruzo 25 26 27 28 ㉙	RR	29 – I've finished
	9.55 am	

KEY: 1.2 3.4 - Numerals indicate writing sequence. Ⓢ – Item explained in comment column on the right. ////- erasure or proofreading. T - Teacher involvement; IS - Interruption Solicited; IU - Interruption Unsolicited, RR - Reread; PR - Proofread; DR - Works on drawing; R- Resources use. Accompanying Language: OV - Overt; WH - Whispering; F- Forms letters and words; M - murmuring; S - No overt language visible.

FIGURE U.1

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TABLE U.2

Name Liam M (2)
Age: 7.4 years

WRITING OBSERVATION

Date 5/6/96
School 4

			Sitting on his own – had been isolated because so distracted and off task a lot. Hence, few opportunities for interaction.
	10.00 am S		
he went in to the toy shop			
1 2 3 4 5 6 7			
and ther was a wind			
8 9 10 11 12			
up toy of king kong and			
13 14 15 16 17 18			
it cam to life and it			
19 20 21 22 23 24	IS		
chas him out			27 – "Can I have another piece of paper please?"
25 26 ㉗			
and brag ran bake			
to the baot and pushed ////	T		Teacher –" If you've finished, come to me"
the button and went home.	10.05 am		
	IU		Liam – "I am finished".
	IS		Got up immediately and took 2 sheets to teacher. Came straight back with colour pencils to illustrate.
	DR 10.20 am		

KEY: 1.2.3 4 - Numerals indicate writing sequence. Ⓔ – Item explained in comment column on the right. ////- erasure or proofreading.
T - Teacher involvement; IS - Interruption Solicited; IU - Interruption Unsolicited; RR - Reread; PR - Proofread; DR - Works on drawing;
R- Resources use. Accompanying Language: OV - Overt; WH - Whispering; F- Forms letters and words; M - murmuring; S - No overt
language visible.

FIGURE U.2
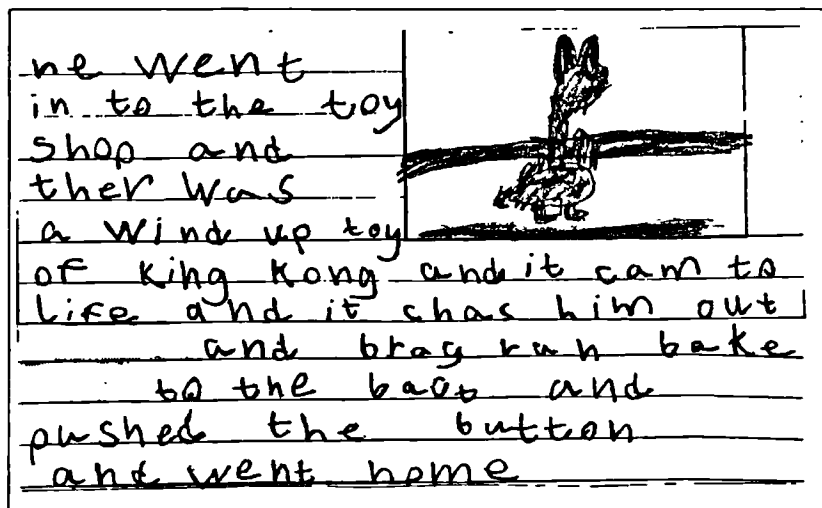
TABLE U.3

Name   Michelle D (3)   Date   12/12/94
Age   6.5 years   School 2

WRITING OBSERVATION

sokin and chele	10.15 am	3 – "How do you spell Christmas Tree?"
1 2 ③	IS	"Does that spell Christmas Tree?" "Christmas Tree? Christmas Tree?" "Go and get my word book". "Is that how you spell Christmas tree?" "What's that?" (to Luke)
christmoa 4	OV	Bursts into tears. Sought the spelling of the word Christmas in her word book. C-H-R-I-S-T-M-A-S
I wab	RR	Monday 12th November Michelle – "Stocking and a Christmas tree"
	10.30 am	

KEY: 1.2.3.4 - Numerals indicate writing sequence. 4 – Item explained in comment column on the right.
////- erasure or proofreading. T - Teacher involvement; IS - Interruption Solicited; IU - Interruption Unsolicited;
RR - Reread; PR - Proofread; DR - Works on drawing; R- Resources use. Accompanying Language; OV - Overt;
WH - Whispering; F- Forms letters and words; M - murmuring; S - No overt language visible.

FIGURE U.3
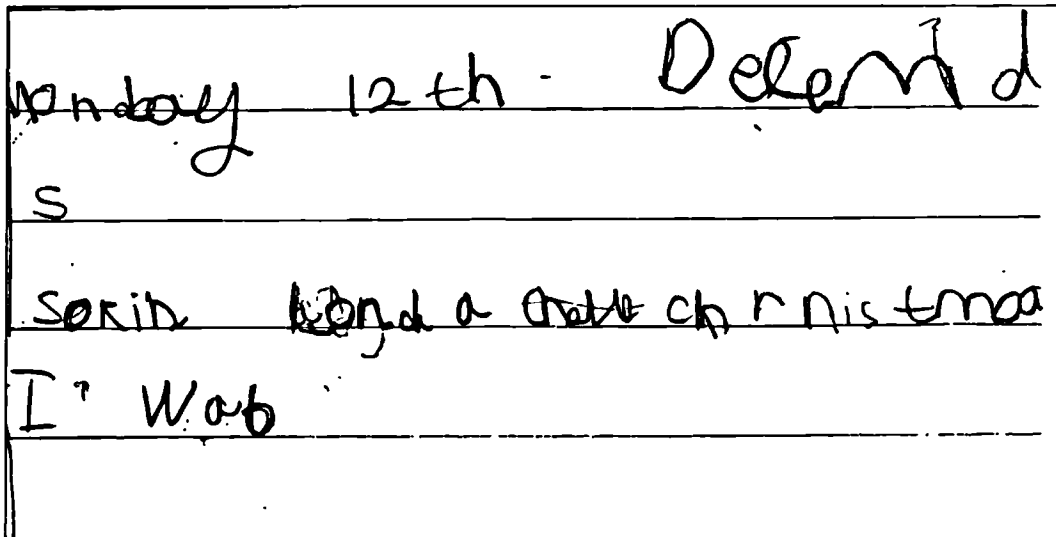
TABLE U.4

Name Michelle D (4)
Age: 7.0 years

Date 4/7/95
School 2

WRITING OBSERVATION

		Writing a list of things at the seaside using a dictionary
Tuesday 4th July	9.50 am IS (R) M	Letter by letter copying from board

Tuesday 4ᵗʰ July	9.50 am IS (R) M	Letter by letter copying from board
1　2　3		8-9 – "s-p-e-r-m　w-h-a-l-e"
W viper fish		11 – "What's that – 'p' or 'd'?"
4　5		Me – "it's a d"
ST　starfish　Sperm		Michelle – "d", "Miss F----....."
6　7　(8)	IS	Stared at teacher but didn't get a response. Continued with letter by letter vocalizing to accompany copying.
whale　Plaice		
(9)　10	IS	16 – "I've got a book - what do you think that is?" Points to the word 'herring'.
dolphin　Sea　snail	IS	To me – "Where do you work? - The juniors?" "Look how much I done"
(11)　12　13		
giant　squid　herineel		18 – "Can I show Miss F----?"
14　15　(16)	T	Teacher – "Oh you've found a lot of things. Do you know what they are?"
haTchet　Fish　cod		M.D – "No"
17　(18)　19		Teacher – "Make sure you only write down words you can read."
		To me
		19 – "Do you know what that word is?"
	10.10 am	Points to 4 and 5

KEY: 1 2.3.4 - Numerals indicate writing sequence. (C) – Item explained in comment column on the right. ////- erasure or proofreading.
T - Teacher involvement; IS - Interruption Solicited; IU - Interruption Unsolicited; RR - Reread; PR - Proofread; DR - Works on drawing; R- Resources use. Accompanying Language: OV - Overt; WH - Whispering, F- Forms letters and words, M - murmuring; S - No overt language visible.

FIGURE U.4

TABLE U.5

Name Luke H (5) **Date** 12/12/94

Age 6.6 years **School 2**

WRITING OBSERVATION

	10.15 am	
Monday 21th December I /// I wok up on ① ② ③ 4 5 6 7 Fowiday D //// anD I saw Froish 8 9 10 11 ⑫ 13 Cismrins he was gnni itrt pissr 14 15 16 17 ⑱ 19	R S I U IS	1-3 – Copied from board 12 – "No! It's a pen. It's from my friend" (response to Michelle) "She always cries when she can't do anything" (about Michelle) 18 – "This is the best writing I've ever done."
	10.30 am	"Oh it's half past ten – playtime."

KEY: 1.2 3 4 - Numerals indicate writing sequence. ① – Item explained in comment column on the right. ////- erasure or proofreading T - Teacher involvement; IS - Interruption Solicited, IU - Interruption Unsolicited; RR - Reread; PR - Proofread, DR - Works on drawing; R- Resources use. Accompanying Language OV - Overt; WH - Whispering; F- Forms letters and words; M - murmuring; S - No overt language visible.

FIGURE U.5

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TABLE U.6

Name Luke H (6) **Date** 4/7/95
Age 7.1 years **School 2**

WRITING OBSERVATION

At the seaside

Tuesday 4th Jule 1995 sar fich gele fich 1 2 3 4 ⑤ ⑥ see wede shaws roks you msc see Duun Big ⑦ ⑧ 9 10 11 12 13 14 foks ol you mit get swog rok pows rok 15 16 17 18 19 20 21 22 23 pors has anmos Parfs up the roks 24 25 ㉖ ㉗ ㉘ ㉙ ㉚ DuFne the wet kums in . SoD Fich ㉛ 32 33 34 35 ㊱ 37 anmoys lec in chaws sawl fich sark defe kid 38 39 40 41 42 43 44 45 46 or sewD And homo. craB 47 48 49 50 ㉛1	9.50 am R RR M RR S RR IS R 10.10 am	1-3 – copied from board 5 – "starfish" 6 – "jelly fish" 7 – "seaweed I can't think of anything" 9 – "I'm going to do a sentence with rocks" 26 - "Now what have I got to do? I need a book". 27–30 - "That says 'paths up the rocks" 31 - "Dolphin – um". 36 – "I done that because I done it wrong – I'm supposed to put a line through it" Chatted to Gemma about whether they're ready for the juniors. "I wish I could cheat and get a book". "I found a rubber" Rubbed out 35. Gets up and gets dictionary "Ah yes!" Gets to fish section in dictionary 51 – Crab "What's that called?"

KEY 1 2.3.4 - Numerals indicate writing sequence. ⓘ – Item explained in comment column on the right. ////- erasure or proofreading.
T - Teacher involvement; IS - Interruption Solicited; IU - Interruption Unsolicited; RR - Reread; PR - Proofread; DR - Works on drawing; R- Resources use. Accompanying Language: OV - Overt; WH - Whispering; F- Forms letters and words; M - murmuring; S - No overt language visible.

FIGURE U.6

TABLE U.7

| Name | Carla C (7) | | | | | | | Date | 3/5/95 |
| Age | 6.1 years | | | | | | | School | 4 |

WRITING OBSERVATION

Carla	I	went	to	the	I	play	doD	9.45 am	1-7 — Has whole sentences written out in workbook – copied from the models. Constantly looking at Liam's work and trying to copy.
①　②　③　④　⑤　⑥　⑦　8								S	
mulu	a	nick	plamt	pd	The	eon	crT	R	
⑨　⑩　⑪　12　13　14　15⑯								S	9 – Copied Liam's work
prp	pop	a	dao	BPLF	and	pbna	and		10 – Copied Liam's work
17	18	19	20	21	22	23	㉔		11 – Copied Liam's work
									16 – Staring around room. Looking
								S	at Liam's writing.
									24 – Teacher announcement to line up for assembly
								10.00 am	

KEY: 1 2.3.4 - Numerals indicate writing sequence.   ③ – Item explained in comment column on the right.   ////- erasure or proofreading.
T - Teacher involvement; IS - Interruption Solicited; IU - Interruption Unsolicited, RR - Reread; PR - Proofread; DR - Works on drawing;
R- Resources use. Accompanying Language: OV - Overt; WH - Whispering; F- Forms letters and words; M - murmuring; S - No overt language visible

FIGURE U.7

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TABLE U.8

Name Carla C (8) **Date** 5/6/96
Age 7.2 years **School** 4

WRITING OBSERVATION

The	Dragoe	was	scked	of	the	fere	the	
1	2	3	4	5	6	⑦	8	
fere	was	////	sced	of	the	Dragun		
⑨	10		11	12	13	14		
the	Mermad	let	the	monster	In	the		
15	16	17	18	⑲	20	21		
haues	for	tea	And	ther	monst	//		
22	23	㉔	25	26	㉗			
er	went	home.	For	super	at	home	he	was
	28	㉙	30	31	32	33	34	35
hung	still	Aṉ̄	Had	the	Dragoe	went	too	
㊱	37	㊳	39	40	41	42	43	
see	were.	The	Fere	was.	And	the	Dragoe	
44	㊺	46	47	48	49	50	51	
got	lots	on	her	way	I	will	help	you
52	53	54	55	56	57	58	59	60

Time / Code	Comment
10.00 am S	7 & 9 = fairy
RR T	19 – silently re-reading T. – "Can you please be quiet for 5 more minutes while the other children finish off their stories"
RR DR	24 – Produced picture of monster in 1ˢᵗ box before returning to write. 27 Long pause, mid word, staring into space
RR DR	29 – //// 36 = " hungry" 38 – crossed out
T	Teacher – "Put your hand up if you haven't finished writing your stories?"
T	Carla put her hand up. "Well you children carry on writing"
PR RR	Went through correcting end two letters of "Dragun" - to 'oe' - "Dragoe" 45 – Pause. Went through inserting capital letters at start of lines and a few dots (full stops) at end of lines. (concentrated well during noise created by rest of class going out to play)
10.27 am	

KEY. 1.2.3.4 - Numerals indicate writing sequence ③ – Item explained in comment column on the right. ////- erasure or proofreading.
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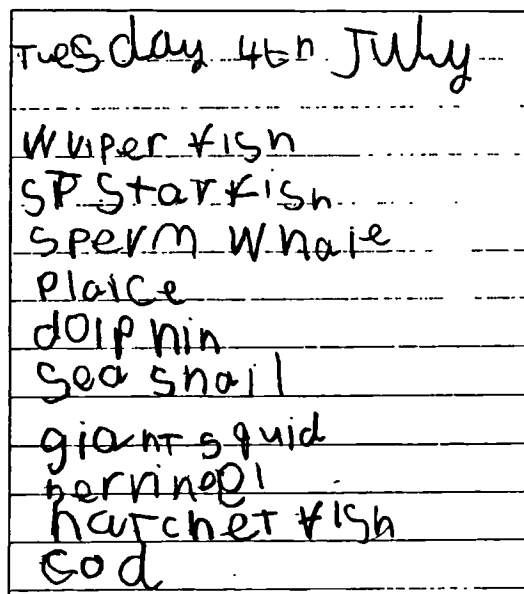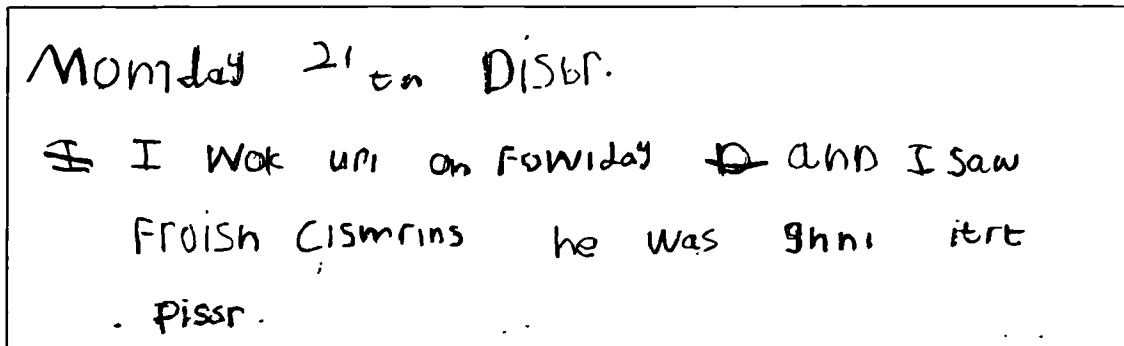
FIGURE U.8

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TABLE U.9

Name Laura F (9) **Date** 5/12/94
Age 6.7 years **School** 1

WRITING OBSERVATION

Monday 5th December I went to my autey Jane new house	9.45 am	
1　2　3　4　5　6　7　8　9　10　11	M	
and I played with my cosons and we played mums and dads		
12 13　14　15　16　17　18　19 (20) 21　22　23	IU	
and I had a tern at every 1 and I went to kent to do theat and	▲	20 — Ricky - "You're not
24　25　26 27　28　29　30　31 32 33　34　35　36 37　38　39　40	|	allowed to do magic lines"
I went to my Antey morin and played with her toys and she	|	Laura ignored and continued
41 42　43　44　45　46　47　48　49　50　51　52　53	|	
lerrend me how to net and then I went to my grandads house	S	
54　55　56　57 58　59　60　61　62　63 64　65　66	|	
and had some crisps and went in the toy room and then I went back	|	
67　68　69　70　71　72 73 74　75　76　77　78 79 80　81	|	
down sters　and went back in the car and I drived away and	|	
82　83　84　85　86　87 88　89 90 91　92　93　94	|	
went in　my cosons room and played and　I　played　football	|	
95　96　97　98　99　100　101　102 103　104　105	|	
and I was a golie and　I cached some and mist some and I	▼	
106 107 108 109 110 111　112　113　114 115 116　117 118　119	IU	126 — Ricky - "Laura did you do
played on the slid and the sesor and then　I went back indoors	IU	your name on the back?"
(120) 121 122 123 124　125　126 127 128　129 130　131　132	S	Laura - "Yes"
and　played and　I　had　diner　and　I　pulled my　kracer	|	
133　134　135 136 137　138　139 140　141 142　143	|	
and　I　got　a　box of　dats and my　grandad gave me	|	
144 145 146 147　148 149　150 151 152　153　154 155	▼	
a　powend and　I　sleeped over　my　cosons　in　Jessica		
156　157　158　159　160　161 162　163　164 165		
room at　the end of　the　bed and we　baniged heads and　my		
166 167 168 169　170 171　172 173 174　175　176　177 178	DR	
en stell herts		
179 180　181	10.20am	

KEY 1.2.3.4 - Numerals indicate writing sequence.　(3) – Item explained in comment column on the right.　////- erasure or proofreading.
T - Teacher involvement; IS - Interruption Solicited; IU - Interruption Unsolicited; RR - Reread; PR - Proofread; DR - Works on drawing;
R- Resources use. Accompanying Language: OV - Overt; WH - Whispering; F- Forms letters and words; M - murmuring; S - No overt
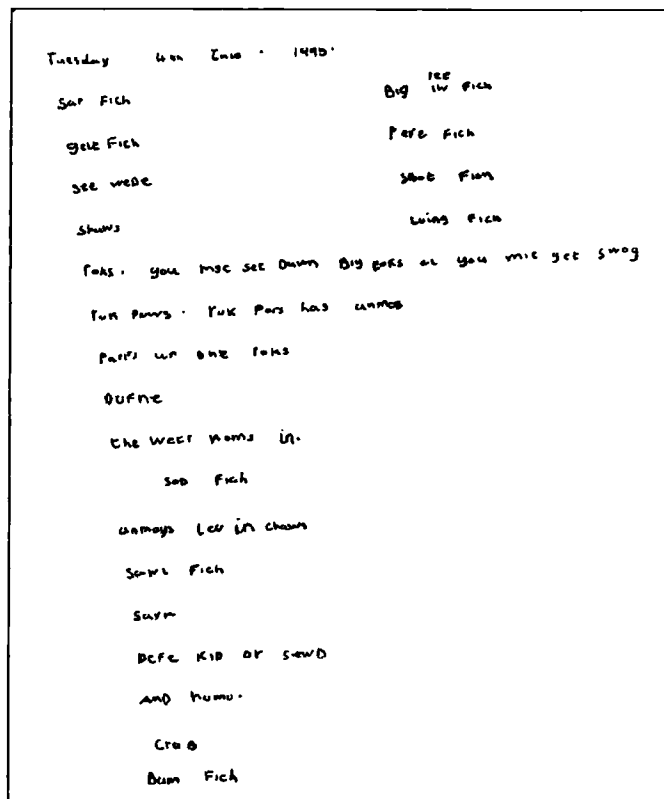language visible.

Monday 5th December

I went to my antey Jane new hause
and I played with my cosons and we played
mums and DaDS and I had a Terh at
every 1 and I went to kent to do thet
and I went to my antey morin and
Played with her Toys and She Lerrend
me how to net and tleh I went to my
grandads house and had some Crisps and
went in the Toy room and then I went
back down sters and went back in the car
and I drive a way and went in my
cosons room and played and I
Played football and I was a golie
and I cached some and mist some
and I Played on the slid and the
sesor and then I went back in doors
and played and I had diner and
I pulled my Kracer and I got
a Box of dats
gave me 5 powends and my grandad
gave me a powend and my ancol peter
over my kosons in Jessica room and I sleeped
at the end of the bed and we baniged
headds and myen stell herts

TABLE U.10

WRITING OBSERVATION

"A Magic Adventure"

Laura a magic advecher one day roger red hat went out for a walk and	9.30am	4 – "Adventures a hard word I
1 2 3 (4) 5 6 7 8 9 10 11 12 13 14 15	S	can spell"
saw a ////magic in the shop//// magic charm in the shop and	IU	Ricky –"Look at Roger's
16 17 (18) (19) (20) (21) 22 23 24 25 26 27		(Red hat) little weird bobble
Roger Bid it and he walked along with his magic charm till he walked	RR	on his hat"
28 29 30 31 32 33 34 35 36 37 38 39 40 41	S	Discussion with Ricky on
so far he meta cave and on the wall of the cave it said you can		what he should write about
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57		18-21 –"Where's the rubber?"
not go in if you do not have the charm so he went in the cave		
58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73	T	Teacher told her that there are
and one (of the) walls inside the cave sore the carm and opend up and		only 5 minutes to go
74 (75) 76 77 78 79 80 81 82 83 84 (85) 86	PR	
it had some gold behind it and roger took the gold all the way home		75– Inserted 'of the'
87 88 89 90 91 92 93 94 95 96 97 98 99 100 101	9.52am	85 – Inserted 'the wall'

KEY. 1.2.3.4 - Numerals indicate writing sequence. (5) – Item explained in comment column on the right. ////- erasure or proofreading.
T - Teacher involvement; IS - Interruption Solicited; IU - Interruption Unsolicited; RR - Reread; PR - Proofread; DR - Works on drawing;
R- Resources use. Accompanying Language: OV - Overt; WH - Whispering; F- Forms letters and words; M - murmuring; S - No overt
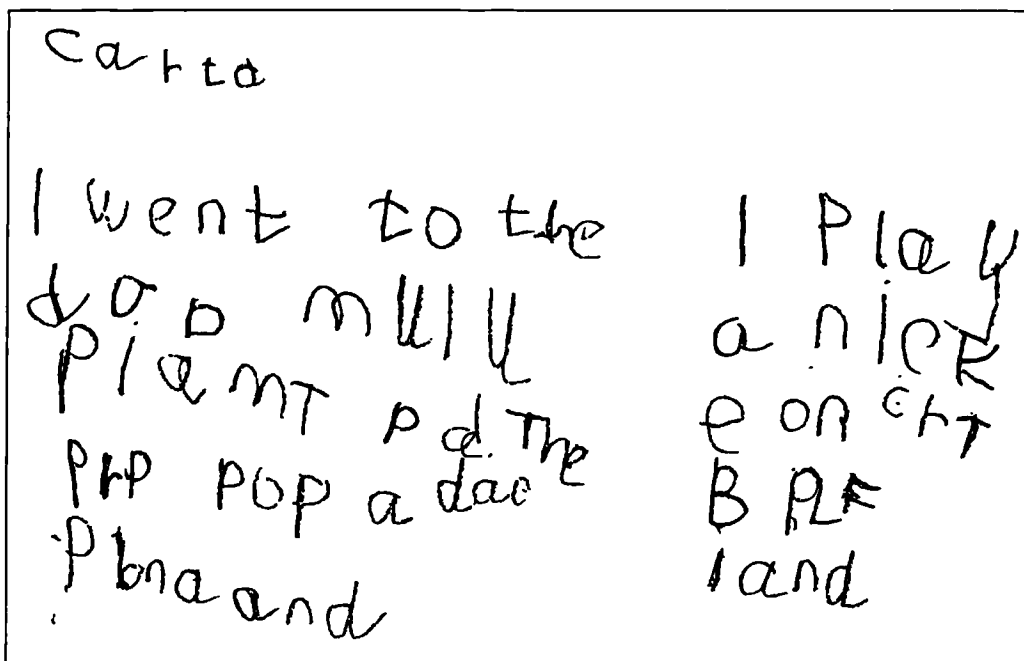language visible.

FIGURE U.10

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TABLE U.11

Name Ricky O (11)
Age: 6.6 years

Date 5/12/94
School 1

WRITING OBSERVATION

	9:45 am	
Monday 5ᵗʰ December Sunday	R	1-3: Copied from blackboard
	IS	5 – "Does a little eye go down and a dot?"
① ② ③ 4	IS	6 – Is went "want" went?. Got up and went to teacher
i want fot bol and i sgod	IS	"Is that right?" Wandering around the room.
⑤ ⑥ 7 8 9 10 11	IS	To Laura - "You're not allowed to do magic lines"
no gos A /// And my tim		Starting around room, running pencil through hair
		(for 5 minutes). Turned round "John, stop it"
12 ⑬ 14 15 16		13 – Does that say " I went to football
sgod nogos to pip///ol fel///		and I scored a goal?" is that right
	RR	/// erased d.
17 18⑲ ⑳ ㉑	IS	19 – Is that a 'to' like " 'two' people fell over?
over I do not no wot the	M	Is that right?"
	IS	20 – Got up to collect rubber from next table ///
22 23 24 25 26 27 28	PR	21 – "Oh I forgot to do my name
uver pipol sgod	IS	Laura did you do your name on the back?"
	M	31 – "Miss Wilkins, I've done 3 lines"
29 30 ㉛	IS	Teacher - "Can you think of any more news?"
	PR	Ricky - " Miss Wilkins, I've finished"
	T	Teacher - "I know you have. What's wrong? What am I going to say?
	T	What's wrong? What word is always a capital?"
	T	Ricky - "I"
		Teacher – "Well go through it and make them capitals."
	DR	Ricky altered all I's from lower to upper case.
	10:20am	

KEY: 1.2 3 4 - Numerals indicate writing sequence. ⓒ – Item explained in comment column on the right. ////- erasure or proofreading.
T - Teacher involvement; IS - Interruption Solicited; IU - Interruption Unsolicited; RR - Reread; PR - Proofread; DR - Works on drawing;
R- Resources use. Accompanying Language: OV - Overt; WH - Whispering; F- Forms letters and words; M - murmuring; S - No overt language visible.
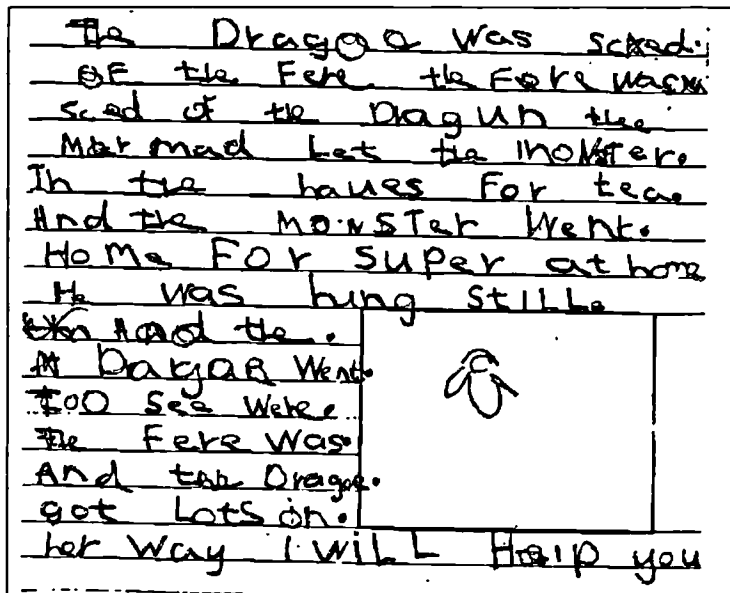
FIGURE U.11

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TABLE U.12

Name Ricky O (12)

Age: 7.2 years

Date 12/7/95

School 1

WRITING OBSERVATION

"A magic adventure"

Writing	Time	Comments
Ricky 12.7.95 a majik advensh	9.30 am	4 – " I've done a j the wrong way"
1 2 3 ④ ⑤		5 – "Does that say it? Draw a line."
Thea was a majik advensh .	S	"What shall I write about the magic adventure?"
6 7 8 9 10		
It had a majik fliing //// carpit	RR	16 – Re read from ⑥ 3 times
11 12 13 14 ⑮ ⑯		
the majik fliing carpit had	S	15 – Rubbed out then re-wrote as before.
17 18 19 20 21	M F	
Red Yellow Blue //// lits and wer	IS	"Laura can I have the rubber please?"
22 23 24 ㉕ ㉖		25-7 – Rubbed out
the red lit wrks it mins its not going	WH	
㉗ 28 29 30 31 32 33 34 35		
wenthe yellow lit wrks it mins	RR	
36 37 38 39 40 ④ 42		41 – " Nearly finished."
its star ing the Blue tit		
43 44 45 ㊻ 47		46 – " I've just got to write this blue light what it means"
mins its going	9.58 am	
48 49 ㊿		50 – "Oh it hurts my arm." Threw pencil down.

KEY: 1 2 3.4 - Numerals indicate writing sequence.   ⊙ – Item explained in comment column on the right.   ////- erasure or proofreading.
T - Teacher involvement; IS - Interruption Solicited, IU - Interruption Unsolicited; RR - Reread; PR - Proofread; DR - Works on drawing;
R- Resources use. Accompanying Language: OV - Overt; WH - Whispering; F- Forms letters and words; M - murmuring; S - No overt language visible.

FIGURE U.12

TABLE U.13

Name Jade M (13)   Date 8/3/95
Age   6.7 years   School 3

WRITING OBSERVATION

Jade	Mackrory	the	witch		
1	②	3	4		
and	the	black	cat	out ///	
5	6	7	⑧	⑨	
went	out	in	the	rain	and
⑩	⑪	12	13	⑭	15
the	cat	w-t	Home	the	cat
16	⑰	⑱	⑲	20	21
w-s	S -	the	hungry cat	he	e –
㉒	㉓	㉔	25	26 27 28	
the	witchs	h-t			
29	30	31			

11.20am	
IS	2 – "I've got a scooter" (Sucking finger and looking around table. Got a dictionary). "I know where witch is" "Is that black cat?" to neighbour.
WH	8 – Returned dictionary collected 'out' from word bank
OV	9 – "Oops – I've done 'out' and meant to do 'went'. I need a rubber now"
R	Went to collect one Then collected 'went' from word bank.
PR	10 – "Now I need 'out'" "Yes spells yes - no spells no"
	11 – Collected 'in' from word bank "How many lines are you on - I'm
M	on 4". Collected dictionary
IS	"This is going to be a tricky one - rain". Flicked through dictionary and found it. Returned dictionary.
RR	14 – re-read
M	17 – "ran I need". Collected dictionary.
	18 – "Wicked witch is the first letter and ticking Tom is the last letter" "Walked". Went to collect dictionary
	19 – "I know where 'home' is"
RR	22 – "was"
PR	23 – "so hungry". Got up to get dictionary.
RR	25 – h - = hungry.
T	26 - Took up to teacher who read it through and filled in the gaps. "I know
OV	how to write he. Then I'll do one last sentence. Then I'm finished"
RR	31 – h-t = food
11.35am	

KEY 1 2.3.4 - Numerals indicate writing sequence. ⓧ – Item explained in comment column on the right. ////- erasure or proofreading. T
- Teacher involvement, IS - Interruption Solicited; IU - Interruption Unsolicited; RR - Reread; PR - Proofread; DR - Works on drawing;
R- Resources use. Accompanying Language: OV - Overt; WH - Whispering, F- Forms letters and words, M - murmuring; S - No overt language visible.

FIGURE U.13

TABLE U.14

Name Jade M (14)　　　　　　　　　　　　　　　　**Date** 22/5/96
Age 7.8 years　　　　　　　　　　　　　　　　　　**School** 3

WRITING OBSERVATION

		"Words provided: - Jack, hello, beanstalk, woman, castle, huge, giant, climbed."
hello /// Hello I'm Jack me and my mum d　—	9.40am	2 – copied from board　　　　8 – Re read
		9 – J- "Is poor on the board?"
1　2　3　4　5　6　7 ⑧		Teacher - "No, can you remember how to spell poor?"
poor my mum said I have to s—	RR	J- "P-O-O-R"
⑨ 10　11　12　13 ⑭ 15　16	T	14 – Wrote hav – neighbour said 'e', so added on end of word.
The cow 1 saw a waman she gave me		18 – To neighbour - "How do you spell 'told'?"
17 ⑱ 19　20　21 ㉒ 23　24　25	S	22 – Added 'my' between 6 and 7. Looked at neighbours
same /// some beans. I gave her the cow	RR	26 – Left seat, to go to word bank and check spelling of some.
㉖ 26　27　28 ㉙ 30　31　32	PR	Corrected a to o.
I ran home mum th—— the beans out	R	29 – Went to word bank and collected 'her'. Copied into book
33　34　35 ㊱ 37　38　39　40	R	(30)
of the w window 1 went to bed.	M	J: "I've got her" to neighbour.
41　42 ㊸ 44　45　46　47　48		36 – Zoë, how so you write through? (No response)
th —— no f—— the nexs da /// day	OV	43 – Looked at neighbours. "Is that 'window'? How do you
49 ㊿ 51　52　53　54	OV	spell it? W-I-N-D-O-W".
they was a /// beanstalk climbed	RR	50 – "You'll never guess what my brother did today? He ripped
55　56　57 ㊽ ㊾ 60	R	all the photos?" (To Zoë)
(He a ca st) //// I saw a stil (castle) In the		53 – To Zoë "How do you spell day?"
61　62 ㊻ 64　65　66　67 68　69	R	54 – Zoë - "You know how to spell it"
door a woman I said can have some food	IU/T	58 – "Is that how you spell 'gave'? " (No 24).
70　71　72　73　74　75　76　77 ⑱	M	59 – Copied from board
the woman said yes, Jack saw the	WH	63 – Teacher - "Jade can you read this back to me?" Pointed at
79　80　81　82　83 ㉘ 85		the words while Jade read.
c —— he s —— the		Teacher - 'Good'. Wrote in missing words and made
86　87　88 ㊾		grammatical corrections (49-50) "without any food" "Now
		you've suddenly said 'he saw'. Would you rather say 'I saw'?
		(64) "Good carry on then that's a lovely!"　　67 – 'Castle'
		78 – 'food'
	T	To Zoë – discussion about how to spell axe (in Zoe's work)
		84 – Returned to discussion of how to spell axe
		89 – Stopped and wrote date at top of writing.
		Teacher - "Class 4. Stop and listen. Some super stories. You
		should be so pleased with yourselves. Stop now because we have
	10.15am	to change for P.E."

KEY: 1 2 3 4 - Numerals indicate writing sequence.　⊙ – Item explained in comment column on the right.　//// - erasure or proofreading.
T - Teacher involvement; IS - Interruption Solicited; IU - Interruption Unsolicited; RR - Reread; PR - Proofread; DR - Works on drawing;
R- Resources use.　Accompanying Language: OV - Overt; WH - Whispering; F- Forms letters and words; M - murmuring; S - No overt
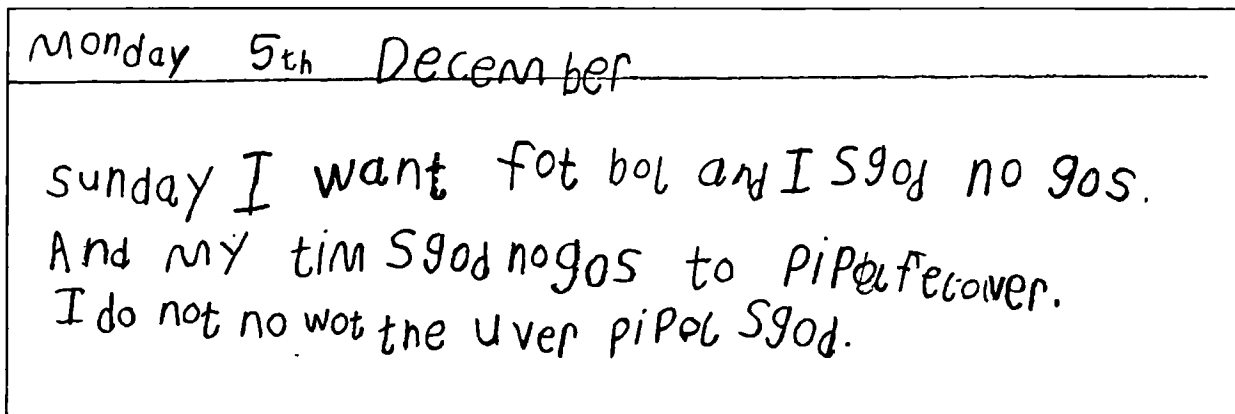language visible

FIGURE U.14

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TABLE U.15

| Name | Shaun S (15) | | Date | 8/3/95 |
| Age | 6.4 years | | School | 3 |

WRITING OBSERVATION

	11.20am	
Shaun Slade cb ///	R	2 – Got a dictionary
		3 – "I've done that wrong" rubbed out
1 ② ③	S	4 and 5 – "I'm writing witch" "I'm writing that" – pointing to
dragon Witch iGing/ erbr///eadan		labelled picture of gingerbread man
④ ⑤ ⑥ ⑦		6 – Staring around room. Returned to copying – letter by letter,
ghost / castle black cat	IU	sometimes with prolonged breaks
⑧ 9 ⑩ 11 ⑫		7 – Collected rubber and rubbed out the 'e' in bread "I'm writing
lleps lltrousers ladder glue		that" – pointing to labelled picture of ghost "It's a ghost"
⑬ ⑭ ⑮ ⑯		8 – "Here's house" – pointing to castle inserting two lines instead
pot saw spanner	T	of spaces at the start of words
⑰ 18 19		10 – took writing to show teacher. Stood in queue
		T= "You see if you can go and do some more writing – not copying,
		on your own". Shaun returned to seat.
	T	12 – Took writing to teacher. Teacher - "I want you to do your own
		writing – not with a dictionary."
		Shaun returned to seat - "I'm going to do some more on my own".
		13 – Copied 'spell', from dictionary
	S	14 – Copied 'trousers' from dictionary. Got up to get another
		dictionary. "Where's 'car?'". Pointed to "boot".
	OV	15 – "I've got ladder". Copied it.
	S	16 – "That says paint". Copied "glue pot" (accompanying picture
	11.55am	which looks like paint)

KEY 1.2.3 4 - Numerals indicate writing sequence. ⑤ – Item explained in comment column on the right. ////- erasure or proofreading.
T - Teacher involvement; IS - Interruption Solicited; IU - Interruption Unsolicited; RR - Reread; PR - Proofread, DR - Works on drawing,
R- Resources use. Accompanying Language: OV - Overt; WH - Whispering; F- Forms letters and words; M - murmuring; S - No overt
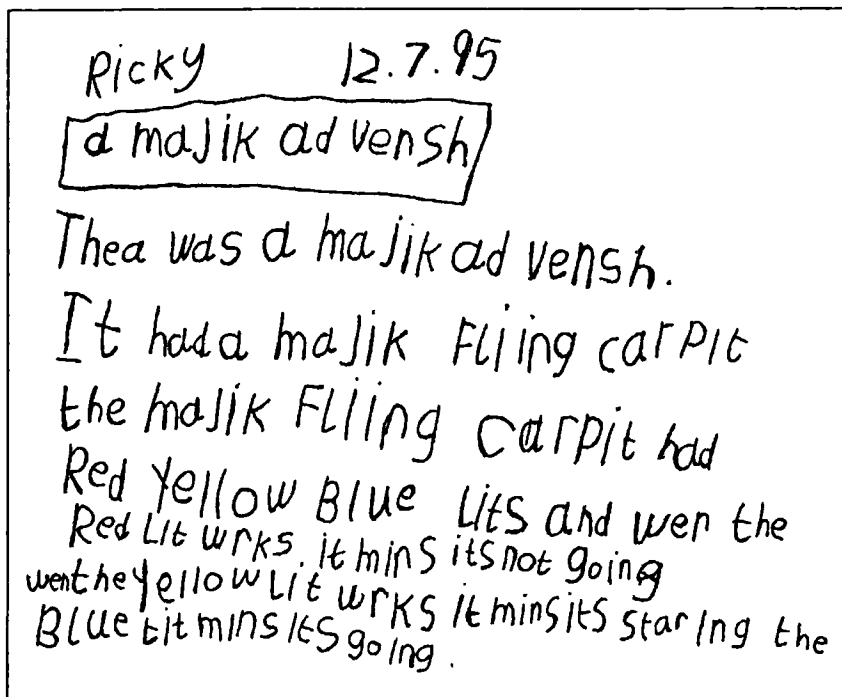language visible.

FIGURE U.15

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TABLE U.16

Name Shaun S (16)
Age 7.7 years

Date 22/5/96
School 3

WRITING OBSERVATION

Wobbles Mr Wobbles Wobbles a Wobbles she		Writing Shaun had produced at the start of the session
gosa sig /// she Woe gin	11.30am	Searching for a pencil. Staring at work and around the room.
① ② ③ ④ ⑤		Scratching neck. Left seat and had a chat with a child on other table.
ido /// dow She soi she	11.35am T/M	Teacher prompted to sit down and begin. 1 – "sacked"
⑥ ⑦ 8 ⑨ 10	IS	2 – "Is that she?" (to me) "Zoe do you know where the rubber is?"
mad uv /// Wube Wiu	R	Other child collected and gave. Erased 'sig' ②and wrote 'she'.
⑪ ⑫ ⑬ ⑭	M	4 – Muttered, "she went home"
Wobbles cosy café		5 – "crying"
15 ⑯ ⑰	R	6 – "Done that wrong a bit" (Shaun) Rubbed out 'ido'.
		7 – "in the door"
		9 – "solded". Girl next to him said 'folded'
	IU	11 – "She made". Another child came along and chatted to him.
		Got out of seat to go and collect rubber
		12 – Rubbed out
	IU	13 – "She went to bed". Child searching information for maths
		assignment.
	R	15-17 – copied from title at top of paper. Picked up work and went
		to stand in line by teacher.
	T	Teacher asked to read back. Read 1st section accurately (before
	RR	recording began). Had difficulty with bulk of text. Not much recall
		of what he intended to say. Unable to read last word - 'café'.
		Discussion about what café is.
	T	Teacher - "Well done. Would you like to go and do your pattern
		along the top now.?"
	DR	Colouring in top of picture.
	12.00am	

KEY: 1.2 3.4 - Numerals indicate writing sequence. ⊙ – Item explained in comment column on the right. ////- erasure or proofreading.
T - Teacher involvement; IS - Interruption Solicited; IU - Interruption Unsolicited; RR - Reread; PR - Proofread, DR - Works on drawing;
R- Resources use. Accompanying Language. OV - Overt; WH - Whispering; F- Forms letters and words, M - murmuring; S - No overt
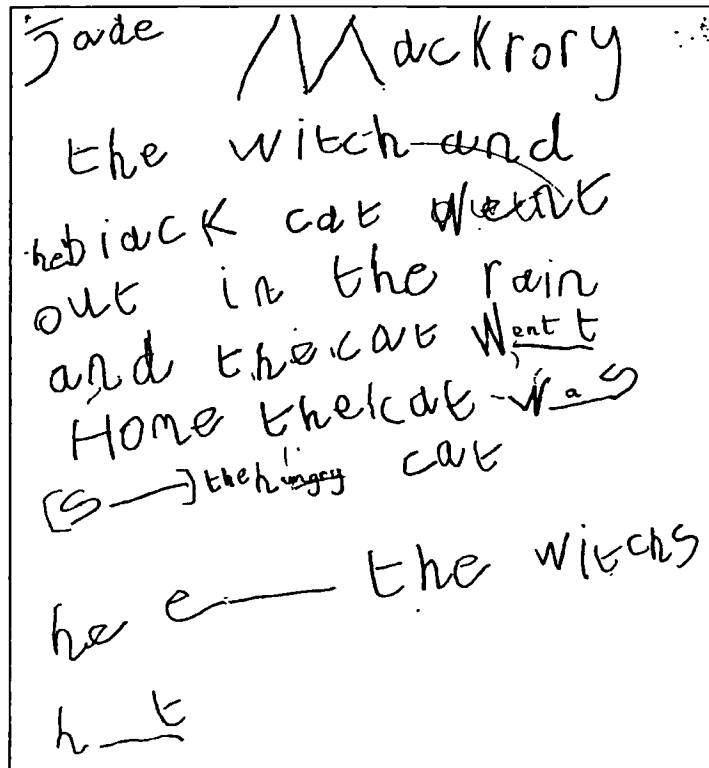language visible.

FIGURE U.16

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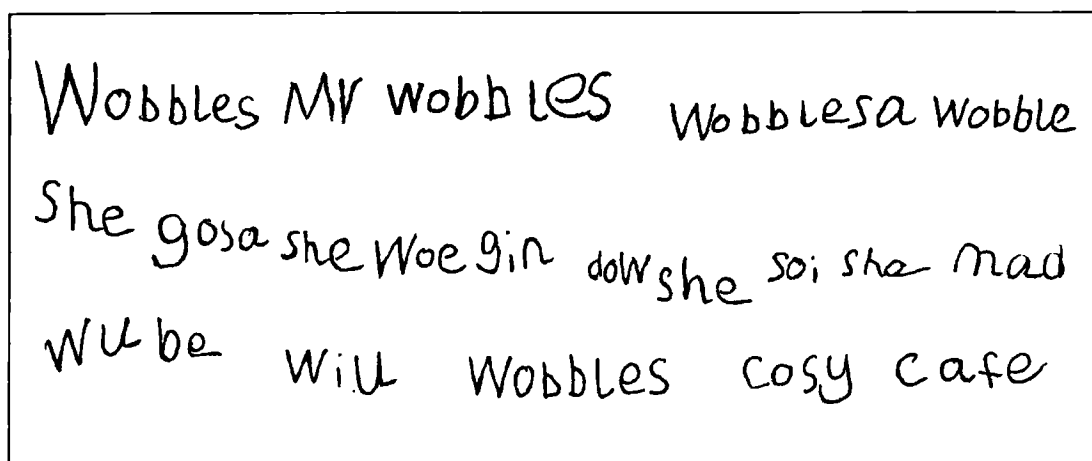
APPENDIX V

Child's name and sample number	Date	Age	Duration of observation	Writing rate (words per minute)	Proportion of words misspelt	Teacher involvement - task related	Teacher involvement - other	Interruption solicited	Interruption unsolicited	Reread	Proof read	Resource use	Accompanying language
Liam M. (1)	3/5/95	6.3 years	10 minutes	2.9	13/28	0	0	1	0	2	1	1	No overt language visible
Liam M. (2)	5/6/96	7.4 years	5 minutes	8	6/41	0	1	2	1	0	0	0	No overt language visible
Michelle D. (3)	12/12/94	6.5 years	15 minutes	0.4	5/6	0	0	7	0	1	0	1	Overt language
Michelle D. (4)	4/7/95	7.0 years	20 minutes	1	4/19	1	0	5	0	0	0	19	Murmuring
Luke H. (5)	12/12/94	6.6 years	15 minutes	1.3	8/19	0	0	1	1	0	0	3	No overt language visible
Luke H. (6)	4/7/95	7.1 years	20 minutes	2.6	42/51	0	0	1	0	3	0	5	Overt language
Carla C. (7)	3/5/95	6.1 years	15 minutes	1.6	17/24	0	0	0	0	0	0	7	No overt language visible
Carla C. (8)	5/6/96	7.2 years	27 minutes	2.2	16/60	0	2	0	0	4	1	0	No overt language visible

Table V.1 – Case study observational data

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Child's name and sample number	Date	Age	Duration of observation	Writing rate (words per minute)	Proportion of words misspelt	Teacher involvement - task related	Teacher involvement - other	Interruption solicited	Interruption unsolicited	Reread	Proof read	Resource use	Accompanying language
Laura F. (9)	5/12/94	6.7 years	35 minutes	5.3	26/187	0	0	0	2	0	0	0	No overt language visible
aura F. (10)	12/7/95	7.2 years	22 minutes	4.6	8/101	0	0	0	1	1	1	0	No overt language visible
Ricky O. (11)	5/12/94	6.6 years	35 minutes	0.9	17/31	1	1	7	0	1	2	3	Murmuring
Ricky O. (12)	12/7/95	7.2 years	28 minutes	1.6	21/46	0	0	1	0	2	0	0	No overt language visible
Jade M. (13)	8/3/95	6.7 years	35 minutes	0.9	7/30	1	0	2	0	4	2	5	Murmuring
Jade M. (14)	22/5/96	7.8 years	35 minutes	2.5	11/89	3	1	0	0	3	1	4	Overt language & murmuring
Shaun S. (15)	8/3/95	6.4 years	35 minutes	0.5	4/19	2	0	0	1	0	0	14	No overt language visible
Shaun S. (16)	22/5/96	7.7 years	30 minutes	0.6	12/17	1	2	1	2	1	0	3	Murmuring

Table V.2 – Case study observational data

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Writing sample scoring criteria

HANDWRITING

Level	Descriptor	Score (0 or 1)
1	Some control over the size, shape and orientation of the writing	
2	Letters are usually clearly shaped and correctly orientated	
3	Handwriting is legible, despite inconsistencies in orientation, size and use of upper and lower case letters.	
4	Handwriting is clear, with ascenders and descenders distinguished, and generally upper and lower case letters are not mixed within the word.	
5	Handwriting shows accurate and consistent letter formation.	
6	Handwriting is joined and legible.	

Total =

SPELLING

Level	Descriptor	Score (0 or 1)
1	Some common words are spelt correctly, and alternatives show a reliance on phonic strategies, with some recall of visual patterns.	
2	In spelling, phonetically plausible attempts reflect growing knowledge of whole word structure, together with an awareness of visual patterns and recall of letter strings.	
3	Spelling of many common monosyllabic words is accurate, with phonetically plausible attempts at longer, polysyllabic words.	
4	Spelling is usually accurate, including that of common, polysyllabic words.	

Total =

PUNCTUATION

Level	Descriptor	Score (0 or 1)
1	There is some evidence of punctuation conventions being used to demarcate units of meaning.	
2	There is evidence of some sentence punctuation.	
3	Growing understanding of the use of punctuation is shown in the use of capital letters and full stops to mark correctly structured sentences.	
4	Punctuation to mark sentences - full stops, capital letters, and question marks - is used accurately.	

Total =

MEANING

Level	Descriptor	Score (0 or 1)
1	Uses single letters or groups of letters to represent meaningful words or phrases.	
2	The writing communicates meaning through simple words or phrases.	
3	The writing communicates meaning beyond a simple statement.	
4	The writing communicates meaning in a way which is lively and generally holds the readers interest.	

Total =

FORM

Level	Descriptor	Score (0 or 1)
1	Writing shows some characteristics of narrative or non-narrative writing but the form may not be sustained.	
2	The writing communicates meaning, using narrative or non-narrative form with some consistency.	
3	Some characteristic features of a chosen form of narrative or non-narrative writing are beginning to be developed.	
4	The main features of the chosen form are used appropriately, beginning to be adapted to the intended readers.	

Total =

VOCABULARY

Level	Descriptor	Score (0 or 1)
1	The vocabulary is appropriate to the subject matter, with some words used effectively.	
2	Vocabulary choices are becoming more varied and ambitious.	
3	A broad range of vocabulary is selected for variety and interest.	

Total =

STRUCTURE

Level	Descriptor	Score (0 or 1)
1	Overall the writing draws more on the characteristics of spoken language than of written language.	
2	Sufficient detail is given to engage the reader, and variation is evident in sentence structure.	
3	Links between ideas or events are mainly clear and the use of some descriptive phrases adds detail or emphasis.	
4	Sequences of sentences extend ideas logically.	
5	The basic grammatical structure of sentences is usually correct.	

Total =

ORGANISATION

Level	Descriptor	Score (0 or 1)
1	Individual ideas are developed in short sections.	
2	The organisation reflects the purpose of the writing, with some sentences extended and linked through connectives other than 'and'.	
3	Stories show an understanding of the rudiments of story structure by establishing an opening, characters and one or more events.	
4	Writing is more complex with detail beyond simple events and with a defined ending.	

Total =

APPENDIX X

Writing sample scoring -Inter-rater reliability using Cohen's Kappa

Once a term, for pupils' latter six terms at KS1, writing samples were collected and scored across 8 different areas (handwriting, spelling, punctuation, meaning, form, vocabulary, structure and organisation), against a range of criteria. These are shown in Appendix W.

A second independent judge scored the first 20 (out of 60 samples) using these criteria, to ascertain the level of agreement between scores.

It was decided to use Cohen's kappa (κ) to compute this as it is a widely recommended index of agreement between two or more judges for categorical data. It includes a correction for the proportion of agreements that could occur by chance alone and has the following formula:

$$\kappa = \frac{\text{observed proportion agreement} - \text{chance-expected proportion agreement}}{1 - \text{chance-expected proportion agreement}}$$

Kappa values can range from -1 to +1:

- A kappa of 1 represents perfect agreement.

- A positive kappa indicates greater agreement than would be expected by chance.

- A kappa of zero indicates that the observed agreement is exactly the same as would be expected by chance.

- A negative represents a level of agreement that is less than would be expected by chance.

There appears to be no clear consensus on how to interpret kappa. Hodges and Zeman (1993) quote the following guidelines from an article by Landis and Koch (1977):

- Kappa greater than .75 = excellent reliability

- Kappa between .59 and .75 = good reliability

- Kappa between .40 and .58 = fair reliability

- Kappa below .40 = poor reliability

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Tables X.1 to X.9 below show the Kappa computations for the extent of agreement between the two judges who scored the writing samples:

Data collection point (by term)	Agreement	Kappa	ASE of Kappa	Significance
T1	$14/18 = 78\%$	0.64	0.17	0.001
T2	$18/20 = 90\%$	0.75	0.16	0.001
T3	$14/20 = 70\%$	0.41	0.18	0.01
T4	$16/20 = 80\%$	0.15	0.14	0.09
T5	$16/20 = 80\%$	0.60	0.16	0.001
T6	$12/20 = 60\%$	0.35	0.16	0.03

Table X.1 – Inter-rater agreement on handwriting levels assessed from writing samples

Data collection point (by term)	Agreement	Kappa	ASE of Kappa	Significance
T1	$18/18 = 100\%$	1.00	0.00	0.001
T2	$15/20 = 75\%$	0.32	0.22	0.02
T3	$16/20 = 80\%$	0.34	0.21	0.05
T4	$13/20 = 65\%$	0.35	0.14	0.03
T5	$15/20 = 75\%$	0.50	0.18	0:01
T6	$14/20 = 70\%$	0.41	0.18	0.02

Table X.2 – Inter-rater agreement on spelling levels assessed from writing samples

Data collection point (by term)	Agreement	Kappa	ASE of Kappa	Significance
T1	$18/18 = 100\%$	-	-	-
T2	$18/20 = 90\%$	-	-	-
T3	$16/20 = 80\%$	0.23	0.26	0.26
T4	$16/20 = 80\%$	0.62	0.16	0.001
T5	$15/20 = 75\%$	0.60	0.15	0.001
T6	$16/20 = 80\%$	0.69	0.14	0.001

Table X.3 – Inter-rater agreement on punctuation levels assessed from writing samples

Data collection point (by term)	Agreement	Kappa	ASE of Kappa	Significance
T1	$17/18 = 94\%$	0.91	0.93	0.001
T2	$13/20 = 65\%$	0.38	0.17	0.02
T3	$15/20 = 75\%$	0.29	0.19	0.08
T4	$15/20 = 75\%$	0.53	0.16	0.009
T5	$15/20 = 75\%$	-0.01	0.14	0.96
T6	$19/20 = 95\%$	-	-	-

Table X.4– Inter-rater agreement on meaning levels assessed from writing samples

Data collection point (by term)	Agreement	Kappa	ASE of Kappa	Significance
T1	$18/18 = 100\%$	-	-	-
T2	$18/20 = 90\%$	0.44	0.33	0.05
T3	$16/20 = 80\%$	0.38	0.25	0.09
T4	$12/20 = 60\%$	0.20	0.18	0.26
T5	$12/20 = 60\%$	0.09	0.14	0.55
T6	$14/20 = 70\%$	0.27	0.20	0.18

Table X.5 – Inter-rater agreement on form levels assessed from writing samples

Data collection point (by term)	Agreement	Kappa	ASE of Kappa	Significance
T1	$18/18 = 100\%$	-	-	-
T2	$18/20 = 90\%$	0.46	0.31	0.015
T3	$17/20 = 85\%$	-0.07	0.05	0.732
T4	$17/20 = 85\%$	0.35	0.26	0.04
T5	$14/20 = 70\%$	0.43	0.19	0.03
T6	$15/20 = 75\%$	0.31	0.23	.06

Table X.6 – Inter-rater agreement on vocabulary levels assessed from writing samples

Data collection point (by term)	Agreement	Kappa	ASE of Kappa	Significance
T1	$17/18 = 94\%$	0.87	0.13	0.001
T2	$15/20 = 75\%$	0.43	0.21	0.05
T3	$19/20 = 95\%$	0.77	0.22	0.001
T4	$20/20 = 100\%$	-	-	-
T5	$19/20 = 95\%$	-	-	-
T6	$18/20 = 90\%$	-	-	-

Table X.7 – Inter-rater agreement on structure levels assessed from writing samples

Data collection point (by term)	Agreement	Kappa	ASE of Kappa	Significance
T1	$18/18 = 100\%$	-	-	-
T2	$19/20 = 95\%$	-	-	-
T3	$20/20 = 100\%$	1.00	0.00	0.001
T4	$19/20 = 95\%$	0.86	0.14	0.001
T5	$19/20 = 95\%$	0.90	0.09	0.001
T6	$17/20 = 85\%$	0.76	0.13	0.001

Table X.8 – Inter-rater agreement on organisation levels assessed from writing samples

Data collection point (by term)	Agreement	Kappa	ASE of Kappa
T1	$\frac{13}{18} = 72\%$	0.52	0.15
T2	$\frac{8}{20} = 40\%$	0.29	0.13
T3	$\frac{6}{20} = 30\%$	0.15	0.10
T4	$\frac{8}{20} = 40\%$	0.27	0.12
T5	$\frac{3}{20} = 15\%$	0.06	0.09
T6	$\frac{7}{20} = 35\%$	0.27	0.11

Table X.9 – Inter-rater agreement on total scores assessed from writing samples

The kappa computations displayed in Tables X.2 to X.10 are all positive, and most are statistically significant, an indicator that the great majority of the agreements were on the whole reliable. The best levels of agreement related to the organisation criteria (Table X. 9) and this was reflected in kappas ranging from .76 to 1.0. Levels of agreement on the form criteria were lowest (Table X.5) and only the judgements made at T2 reached a statistically significant level. Generally, the best agreement was at T1, and this occurred because most pupils only achieved the basal criteria, reducing the range of possibilities for differential judgement and hence the likelihood of disagreement between judges.

The descriptive data in Table X.11 below indicates that there was no systematic bias demonstrated by either rater. Table X.12 shows that the percentage agreement between judges ranged from 76% to 95%.

Data collection point (by term)	Mean total score (first rater)	Mean total score (second rater)
T1	3.39	3.11
T2	5.55	5.45
T3	6.05	6.30
T4	9.30	9.20
T5	10.95	10.95
T6	13.05	13.20

Table X.10 – Comparison of mean total scores awarded by two judges on writing samples

Writing sub-skill	Proportion agreement	Percentage agreement
Handwriting	$90/118$	76%
Spelling	$91/118$	77%
Punctuation	$99/118$	84%
Meaning	$94/118$	80%
Form	$90/118$	76%
Vocabulary	$99/118$	84%
Structure	$108/118$	92%
Organisation	$112/118$	95%

Table X.11 – Levels of agreement between two judges on sub-skill score totals

List of variables

Variable name	Variable descriptor	Information source	Range of scores
first	first name	Parental Questionnaire (PQ)	
surname	surname	Parental Questionnaire	.
school	name of school	Parental Questionnaire	School 1 School 2 School 3 School 4
sex	gender	Parental Questionnaire	1= male 2= female
birthdat	date of birth	Parental Questionnaire	
entrydat	school entry date	Parental Questionnaire	1= 01.09.93 2= 01.05.94 3= 01.01.94
entryage	age at school entry	Parental Questionnaire	
patocc	paternal occupation	Parental Questionnaire	1= professional 2= managerial and technical 3= skilled non-manual 4= skilled manual 5= partly skilled 6= unskilled 9= missing data

Variable name	Variable descriptor	Information source	Range of scores
patempst	Paternal employment status	Parental Questionnaire	1 = employed 2 = unemployed 3 = unknown
matocc	maternal employment	Parental Questionnaire	1 = full-time 2 = part-time 3 = housewife
patedqu	paternal educational qualifications	Parental Questionnaire	coded on a scale of 1-9 (see Appendix B)
matedqu	maternal educational qualifications	Parental Questionnaire	coded on a scale of 1-9 (see Appendix B)
famsize	number of children in family	Parental Questionnaire	
famposit	family position	Parental Questionnaire	
preschoo	most recent pre-school facility attended	Parental Questionnaire	1 = playgroup 2 = nursery 3 = other 4 = none
terms	number of terms attended pre-school	Parental Questionnaire	
sessions	average number of sessions	Parental Questionnaire	
otherarr	other child care arrangements	Parental Questionnaire	1 = nanny 2 = family 3 = childminder 4 = au pair 5 = none

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Variable name	Variable descriptor	Information source	Range of scores
material	number of writing materials at home	Parental Questionnaire – code numbers read from an aide-memoire	1-30 (see Appendix C for full list)
parskill	Parent assessment of child's skill	Parental Questionnaire - checklist	1-12 1 point awarded for each statement of attainment
parmotiv	parent assessment of child's motivation	PQ - 'Any additional observations or comments about the child's development as a writer'	1 - 5 scale low-high motivation Judgement based on annotations of parental responses
parmodel	models of writing provided by parents	PQ - 'What kinds of writing does your child see you doing and how often?'	1 - 5 scale Judgement based on annotations of parental responses
memory	parental memory of teaching	PQ - 'What are your earliest memories about being taught to write?'	1= skills focus 2= content focus 3= skills + content 4= no memory
pareport	parents self report	PQ - 'How did you feel about writing when you were at school?'	1 - 5 scale negative-positive Judgement based on annotations of parental responses
expectat	parental expectations	PQ - 'What do you expect your child to be able to do with regard to writing by the time they reach adulthood?'	1= functional 2= vocational

Variable name(s)	Variable descriptor	Information source	Range of scores
PattQ1, T(1, 2, 3)attQ1	1. The presentation is less important than the content of writing.	Attitude Questionnaire (completed by parents and each teacher)	1= strongly agree 2= agree 3= disagree 4= strongly disagree
PattQ2, T(1, 2, 3)attQ2	2. The importance of good writing is under-rated	Attitude Questionnaire (completed by parents and each teacher)	"
PattQ3, T(1, 2, 3)attQ3	3. Children will not learn to write just by being exposed to appropriate experiences	Attitude Questionnaire (completed by parents and each teacher)	"
PattQ4, T(1, 2, 3)attQ4	4. It is not necessary for children to appreciate the purpose of writing	Attitude Questionnaire (completed by parents and each teacher)	"
PattQ5, T(1, 2, 3)attQ5	5. Children will only produce their best writing when they concentrate on correct spelling	Attitude Questionnaire (completed by parents and each teacher)	"
PattQ6, T(1, 2, 3)attQ6	6. Teaching writing should just be left to schools	Attitude Questionnaire (completed by parents and each teacher)	"
PattQ7, T(1, 2, 3)attQ7	7. Correct spelling should always be insisted upon	Attitude Questionnaire (completed by parents and each teacher)	"
PattQ8, T(1, 2, 3)attQ8	8. The importance of good spelling is over-rated	Attitude Questionnaire (completed by parents and each teacher)	"
PattQ9, T(1, 2, 3)attQ9	9. Children should learn to write by copy writing	Attitude Questionnaire (completed by parents and each teacher)	"

Variable name(s)	Variable descriptor	Information source	Range of scores
PattQ10, T(1, 2, 3)attQ1	10. It is unimportant for pre-school children to write	Attitude Questionnaire (completed by parents and each teacher)	1 = strongly agree 2 = agree 3 = disagree 4 = strongly disagree
PattQ11, T(1, 2, 3)attQ11	11. Teachers alone can teach writing	Attitude Questionnaire (completed by parents and each teacher)	,,
PattQ12, T(1, 2, 3)attQ12	12. Neat handwriting is very important	Attitude Questionnaire (completed by parents and each teacher)	,,
PattQ13, T(1, 2, 3)attQ13	13. Parents should not be expected to show their children how to write	Attitude Questionnaire (completed by parents and each teacher)	,,
PattQ14, T(1, 2, 3)attQ14	14. Children will learn to write just by being exposed to the appropriate experiences	Attitude Questionnaire (completed by parents and each teacher)	,,
PattQ15, T(1, 2, 3)attQ15	15. Correct spelling shuld not always be insisted upon	Attitude Questionnaire (completed by parents and each teacher)	,,
PattQ16, T(1, 2, 3)attQ16	16. Children will only produce their best writing when they stop concentrating on correct spelling	Attitude Questionnaire (completed by parents and each teacher)	,,
PattQ17, T(1, 2, 3)attQ17	17. Teachers alone cannot teach writing	Attitude Questionnaire (completed by parents and each teacher)	,,
PattQ18, T(1, 2, 3)attQ18	18. Spelling should be taught without learning lists	Attitude Questionnaire (completed by parents and each teacher)	,,
PattQ19, T(1, 2, 3)attQ19	19. Neat handwriting is not that important	Attitude Questionnaire (completed by parents and each teacher)	,,

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Variable name(s)	Variable descriptor	Information source	Range of scores
PattQ20, T(1, 2, 3)attQ20	20. Children should learn to write without copy writing	Attitude Questionnaire (completed by parents and each teacher)	1= strongly agree 2= agree 3= disagree 4= strongly disagree
PattQ21, T(1, 2, 3)attQ21	21. Being able to write well is extremely important	Attitude Questionnaire (completed by parents and each teacher)	,,
PattQ22, T(1, 2, 3)attQ22	22. The presentation is more important than the content of writing	Attitude Questionnaire (completed by parents and each teacher)	,,
PattQ23. T(1, 2, 3)attQ23	23. Teaching writing should not just be left to schools	Attitude Questionnaire (completed by parents and each teacher)	,,
PattQ24, T(1, 2, 3)attQ24	24. Spelling should be taught by learning lists	Attitude Questionnaire (completed by parents and each teacher)	,,
PattQ25, T(1, 2, 3)attQ25	25. It is important for pre-school children to write	Attitude Questionnaire (completed by parents and each teacher)	,,
PattQ26, T(1, 2, 3)attQ26	26. It is necessary for children to appreciate the purpose of writing	Attitude Questionnaire (completed by parents and each teacher)	,,
PattQ27, T(1, 2, 3)attQ27	27. Being able to write well is not that important	Attitude Questionnaire (completed by parents and each teacher)	,,
PattQ28, T(1, 2, 3)attQ28	28. Parents should be expected to show their children how to write	Attitude Questionnaire (completed by parents and each teacher)	,,

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Variable name	Variable descriptor	Information source	Range of scores
Timeact	Number of 5 minute periods devoted to writing activities over 7 days	Diary Record	
Timeskill	Number of 5 minute periods devoted to writing skills over 7 days	Diary Record	
Timetotal	Total number of 5 minute periods spent writing over 7 days	Diary Record	
Rangeact	Number of different activities undertaken	Diary Record	
Rangeski	Number of different skills training exercises undertaken	Diary Record	
Devlevel	Developmental level in writing based on Lamme/Green Scale	Writing samples in the exercise book provided over 7 day period	1= Scribbles / Mock letters 2= A few letters or numbers 3= Repeated groups of letters Contains one memorised or copied word, excluding name) 4= Mock words in a long list (some phonetic relationship to word) List of 2-10 words Word boundaries (spaces, dots, lines etc. to separate words) 5= Simple message (I love you) List of 10 or more words (phonetic or memorised spelling) 6= Message of 2 or more sentences 9= No sample provided

Variable name	Variable descriptor	Information source	Range of scores
BPVSstan	British Picture Vocabulary Scale standardised score	Entry skills assessment	Standardised score range = 60 - 140
BPVScent	British Picture Vocabulary Scale percentile rank		1 - 99%
WPPSIvoc	WPPSI-R (UK) Vocabulary subtest scaled score	Entry skills assessment	1 - 19
BASflcen	BAS Verbal Fluency subtest percentile rank	Entry skills assessment	1 - 99%
BASflTsc	BAS Verbal Fluency subtest T-score	Entry skills assessment	27 - 73
Conprint	Concepts about Print Test score (Clay)	Entry skills assessment	0 - 24
Constan	Concepts about Print stanine group	Entry skills assessment	1 - 9
LetterID	Test of letter identification (names and sounds)	Entry skills assessment	0 - 54
LettIDst	Letter identification test stanine group	Entry skills assessment	1 - 9
BAScopab	BAS Copying subtest ability score	Entry skills assessment	10 - 104
BAScopce	BAS Copying subtest percentile rank	Entry skills assessment	1 - 99%
BAScopT	BAS Copying subtest T-score	Entry skills assessment	27 - 73
Copyphra	Assessment of copied phrase: 'On the ground' (see Appendix K)	Entry skills assessment	0 - 5

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Variable name	Variable descriptor	Information source	Range of scores
Writname	Assessment of writing name (first 7 letters) (see Appendix L)	Entry skills assessment	0 - 5
Writvoca	Score on test of Writing Vocabulary	Entry skills assessment	0 upwards (see Appendix L)
Wrivocst	Test of Writing Vocabulary stanine group	Entry skills assessment	1 - 9
Dicstory	Dictated story re-reading score (see Appendix M)	Entry skills assessment	1 - 7
Context1	Dictated story completeness of context score analysis: 1 = Who	Entry skills assessment	0 - 3
Context2	Dictated story completeness of context score analysis: 2 = where	Entry skills assessment	0 - 3
Context3	Dictated story completeness of context score analysis: 3 = what	Entry skills assessment	0 - 2
Context4	Dictated story completeness of context score analysis: 4 = how	Entry skills assessment	0 - 2
Totalcon	Total completeness of context score	Entry skills assessment	0 - 10
Storgram	Story grammar classification level	Entry skills assessment	1 - 8
Entrysum	Sum of range of entry skills scores	Entry skills assessment	38 - 352
T(1,2,3)name	Name of child's class teacher	Teacher questionnaire 2 (TQ2)	
T(1,2,3)age	Age of teacher in years	Teacher questionnaire 2 (TQ2)	
T(1,2,3)exp	Length of teaching experience, in years	Teacher questionnaire 2 (TQ2)	

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Variable name	Variable descriptor	Information source	Range of scores
T(1,2,3)emph	Curriculum emphasis in teaching writing	Teacher questionnaire 2 (TQ2)	
T(1,2,3)terms	Number of terms spent with teacher	Teacher questionnaire 2 (TQ2)	
T(1,2,3)exlang	Teacher assessment of expressive language	Teacher questionnaire 1 (TQ1)	1 = below average 2 = average 3 = above average
T(1,2,3)relang	Teacher assessment of receptive language	Teacher questionnaire 1 (TQ1)	,,
T(1,2,3)read	Teacher assessment of child's reading	Teacher questionnaire 1 (TQ1)	,,
T(1,2,3)write	Teacher assessment of child's writing	Teacher questionnaire 1 (TQ1)	,,
T(1,2,3)intel	Teacher assessment of child's intelligence	Teacher questionnaire 1 (TQ1)	,,
Teachwr(1,2,3)	Teacher assessment of child's teachability in writing	Teacher questionnaire 1 (TQ1)	,,
T(1,2,3)wrconc	Teacher assessment of child's ability to concentrate on a writing task	Teacher questionnaire 1 (TQ1)	,,
T(1,2,3)wrenj	Teacher assessment of child's enjoyment of writing	Teacher questionnaire 1 (TQ1)	,,
T(1,2,3)homsup	Teacher assessment of level of support from child's home	Teacher questionnaire 1 (TQ1)	,,

Variable name	Variable descriptor	Information source	Range of scores
T(1,2,3)expect	Teacher expectations for child's future writing development	Teacher questionnaire 1 (TQ1)	"
Taskboo(1,2,3)	Teacher estimate of the frequency writing workcards/workbooks are used	Teacher Questionnaire 2 (TQ 2)	1 = Daily 2 = 2-3 times per week 3 = Weekly 4 = 2-3 times monthly 5 = Monthly or less 6 = Never
Taskdes(1,2,3)	Teacher estimate of the frequency descriptive writing tasks are undertaken	Teacher Questionnaire 2 (TQ 2)	"
Tasksto(1,2,3)	Teacher estimate of the frequency of story writing	Teacher Questionnaire 2 (TQ 2)	"
Tasknew(1,2,3)	Teacher estimate of the frequency of news writing	Teacher Questionnaire 2 (TQ 2)	"
Taskhan(1,2,3)	Teacher estimate of the frequency of handwriting practice	Teacher Questionnaire 2 (TQ 2)	"
Taskspe(1,2,3)	Teacher estimate of the frequency of spelling practice	Teacher Questionnaire 2 (TQ 2)	"
Taskcar(1,2,3)	Teacher estimate of the frequency of writing greeting cards	Teacher Questionnaire 2 (TQ 2)	"
Tasklab(1,2,3)	Teacher estimate of the frequency of labelling pictures	Teacher Questionnaire 2 (TQ 2)	"

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Variable name	Variable descriptor	Information source	Range of scores
Taskpoe(1,2,3)	Teacher estimate of the frequency of poem/ play writing	Teacher Questionnaire 2 (TQ 2)	,,
Tasktot(1,2,3)	Total frequency of writing activities per week	Teacher Questionnaire 2 (TQ 2)	,,
Check1	Total number of checklist skills mastered at entry	Writing checklist	1-34
Check2	Total number of checklist skills mastered at outcome	Writing checklist	1-34
Handwrit	Total handwriting score	Termly writing samples gathered during child's time in R, Y1 and Y2	0 - 54
Spelling	Total spelling score	,,	0 - 36
Punctuat	Total punctuation score	,,	0 - 36
Meaning	Total meaning score	,,	0 - 36
Form	Total form score	,,	0 - 36
Vocab	Total vocabulary score	,,	0 - 27
Struct	Total structure score	,,	0 - 45
Organis	Total organisation score	,,	0 - 36
Total	Total outcome score	,,	0 - 394

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Variable name	Variable descriptor	Information source	Range of scores
SATscore	Writing level as assessed in Key Stage 1 SATs	Results supplied by schools	1 = W (working towards level 1) 2 = Level 1 3 = Level 2c 4 = Level 2b 5 = Level 2a 6 = Level 3

APPENDIX Z

Attitude Questionnaire Data

Version 1

Version 1 of the Attitude Questionnaire (see Appendix D) comprised 32 items, with 8 statements about writing relating to the following dimensions (see p. 95-6 for detailed descriptions):

- ➢ Skill-focused – Content-focused

- ➢ Direct-Indirect

- ➢ High value – Low value

- ➢ Involved – Distanced

Principal components analysis extracted 8 factors with an eigenvalue greater than one (Kaiser's criterion) using an orthogonal (varimax) rotation. However, the factor loadings were all very low, and so it was decided to discard 12 of the items that did not discriminate sufficiently between respondents.

Version 2

Version 2 of the Attitude Questionnaire comprised the remaining 20 statements (see Appendix E) that appeared to discriminate between the high and low attitude scores in the original subject group. Principal components analysis was re-run using the data relating to these 20 statements. Once more 8 factors with eigenvalues greater than one were drawn out, and these, along with the statements that relate to each one are displayed in Table Z.1 below:

Table Z.1 - Attitude Questionnaire (Version 1) Factor Analysis

Factor A (1) variance explained: .182

Statement	Weightings
18. Neat handwriting is not that important.	.75
11. Neat handwriting is very important.	-.74
1. The presentation is less important than the content of writing.	.73
5. Teaching writing should be left to schools.	-.72

Factor B (2) variance explained: .139

Statement	Weightings
17. Spelling should be taught without learning lists.	.81
13. Children will learn to write given the appropriate experiences.	.76
19. Children should learn to write without copy writing.	.65

Factor C (3) variance explained: .126

Statement	Weightings
6. Correct spelling should always be insisted upon.	-.71
15. Children will only produce their best writing when they stop worrying about correct spelling.	.71
19. Children should learn to write without copy writing.	-.53

Factor D (4) variance explained: .122

Statement	Weightings
9. It is unimportant for pre-school children to write.	.82
16. Teachers alone cannot teach writing.	-.70
12. Parents should not be expected to show their children how to write	.54

Factor E (6) variance explained: .116

Statement	Weightings
3. It is not necessary for children to appreciate the purpose of individual writing activities.	.76
20. Being able to write well is a very important skill in life.	-.62
7. The importance of good writing is over-rated.	.56

Factor F (8) variance explained: .114

Statement	Weightings
10. Children should be encouraged to copy underneath a model when they start to write.	.73
4. The value of a piece of writing is diminished by poor presentation.	.68
12. Parents should not be expected to show their children how to write.	.43

Factor G (7) variance explained: .107

Statement	Weightings
8. Providing children with writing experiences is insufficient to develop skills.	.82
14. Teaching writing skills one at a time inhibits development.	.73

Factor H (5) variance explained: .096

Statement	Weightings
2. The only way to learn to write is to be taught the individual skills one at a time.	.87

It can be seen that none of the factors explains a major part of the total variance. However, scrutiny of the statements relating to each factor revealed the re-emergence of several of the underlying dimensions identified at the formulation stage. Table Z.2 below relates the results of the 20-item factor analysis to the conceptual dimensions that underpinned the original questionnaire design.

Table Z.2 - Pilot study results and relationship to each dimension

Skill focus - Content focus

Item	Strongly Agree	Agree	Disagree	Strongly Disagree
1. The presentation is less important than the content of writing.	4	19	12	3
3. It is not necessary for children to appreciate the purpose of individual writing activities.	0	12	15	11
4. The value of a piece of writing is diminished by poor presentation.	9	13	10	6
6. Correct spelling should always be insisted upon.	15	15	5	3
11. Neat handwriting is very important.	11	21	4	2
15. Children will only produce their best writing when they stop worrying about correct spelling.	3	15	11	9
18. Neat handwriting is not that important.	3	10	12	13

Direct - Indirect

Item	Strongly Agree	Agree	Disagree	Strongly Disagree
2. The only way to learn to write is to be taught the individual skills one at a time.	7	11	18	2
8. Providing children with writing experiences is insufficient to develop skills.	6	12	12	8
10. Children should be encouraged to copy underneath a model when they start to write.	15	15	7	1
13. Children will learn to write given the appropriate experiences.	15	16	3	4
14. Teaching writing skills one at a time inhibits development.	1	13	16	8
17. Spelling should be taught without learning lists.	3	10	14	11
19. Children should learn to write without copy writing.	1	6	21	10

Involved – Distanced

Item	Strongly Agree	Agree	Disagree	Strongly Disagree
5. Teaching writing should be left to schools.	1	7	10	20
9. It is unimportant for pre-school children to write.	2	9	11	16
12. Parents should not be expected to show their children how to write.	2	6	12	18
16. Teachers alone cannot teach writing.	4	22	11	1

High value - Low value

Item	Strongly Agree	Agree	Disagree	Strongly Disagree
7. The importance of good writing is over-rated.	0	8	13	17
20. Being able to write well is an important skill in life.	16	16	4	2

Initially, the factor analysis was difficult to interpret, as there appeared to be no clear link between factors that emerged and the original conceptual categories under which the statements were grouped. However, closer inspection provided an interesting insight into how the researcher's perception of the meaning conveyed by a statement did not necessarily parallel that of an individual with no understanding of the educational issues or debates. For example, many parents have little knowledge or experience of the process approach to writing, so statements such as "It is not necessary for children to appreciate the purpose of individual writing activities" (no. 3) were difficult for them to interpret. Given that it loaded on to Factor E along with two other statements that suggest that writing is unimportant and over-rated, we can speculate that statement 3 was interpreted in a similar manner and understood in a different way.

When the semantics were considered in more detail a pattern could be seen more clearly, and the relationship between the factors and the conceptual categories became clearer. The 5 main factors (A, B, C, D and E, accounting for 56% of the variance) related directly to the conceptual categories. Items relating to the smaller, weaker factors (F, G and H) and those that did not discriminate well were discarded. This led to the construction of Version 3, the final version of the Attitude Questionnaire.

Version 3

This version of the attitude questionnaire can be seen in Appendix F. It is based on the redefined conceptual categories, taking the factor analysis intro account. The statements relating to each are listed below:

The role and importance of handwriting: Skills vs. content focus (Factor A)

Statement
19. Neat handwriting is not that important.
12. Neat handwriting is very important.
1. The presentation is less important than the content of writing.
22. The presentation is more important than the content of writing.
6. Teaching writing should just be left to schools.
23. Teaching writing should not just be left to schools.

Direct vs. indirect teaching approach (Factor B)

Statement
18. Spelling should be taught without learning lists.
24. Spelling should be taught by learning lists.
14. Children will learn to write just by being exposed to the appropriate experiences.
3. Children will not learn to write just by being exposed to appropriate experiences.
20. Children should learn to write without copy writing.
9. Children should learn to write by copy writing.

The role and importance of spelling: Skills vs. content focus (Factor C)

Statement
7. Correct spelling should always be insisted upon.
15. Correct spelling should not always be insisted upon.
16. Children will only produce their best writing when they stop concentrating on correct spelling.
5. Children will only produce their best writing when they concentrate on correct spelling.

Parental distance vs. parental involvement (Factor D)

Statement
10. It is unimportant for pre-school children to write.
25. It is important for pre-school children to write.
17. Teachers alone cannot teach writing.
11. Teachers alone can teach writing.
13. Parents should not be expected to show their children how to write.
28. Parents should be expected to show their children how to write.

Low importance vs. high importance (Factor E)

Statement
21. Being able to write well is extremely important.
27. Being able to write well is not that important.
4. It is not necessary for children to appreciate the purpose of writing.
26. It is necessary for children to appreciate the purpose of writing.
2. The importance of good writing is under-rated.
8. The importance of good writing is over-rated.

Hence, the derived 28 statements designed to sample 14 writing related constructs across their positive and negative polarities were presented in random order on the final version of the questionnaire (Appendix F) and these are shown under the relevant construct headings:

- Emphasis - content or presentation
  1. The presentation is less important than the content of writing
  2. The presentation is more important than the content of writing

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- Direct teaching or exposure

  3. Children will not learn to write just by being exposed to appropriate experiences

  14. Children will learn to write just by being exposed to appropriate experiences

- Purpose - importance

  4. It is not necessary for children to appreciate the purpose of writing

  26. It is necessary for children to appreciate the purpose of writing

- Rated - under or over

  2. The importance of good writing is under-rated

  8. The importance of good writing is over-rated

- Responsibility - school or home

  6. Teaching writing should just be left to schools

  3. Teaching writing should not just be left to schools

- Spelling - importance

  5. Children will only produce their best writing when they concentrate on correct spelling

  16. Children will only produce their best writing when they stop concentrating on correct spelling

- Spelling - accurate or not

  7. Correct spelling should always be insisted upon

  15. Correct spelling should not always be insisted upon

- Copy writing - appropriate or not

  9. Children should learn to write by copy writing

  20. Children should learn to write without copy writing

- Pre-school writing - importance

  10. It is unimportant for pre-school children to write

  25. It is important for pre-school children to write

- Teachers - responsibility level

  11. Teachers alone can teach writing

  17. Teachers alone cannot teach writing

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- Handwriting - importance

    12. Neat handwriting is very important

    19. Neat handwriting is not that important

- Parents - responsibility level

    13. Parents should not be expected to show their children how to write

    28. Parents should be expected to show their children how to write

- Spelling - lists or not

    18. Spelling should be taught without learning lists

    24. Spelling should be taught by learning lists

- Writing - importance

    21. Being able to write well is extremely important

    27. Being able to write well is not that important

Descriptive data relating to responses to Attitude Questionnaire

For every child in the study, a parent and each of their teachers completed the Attitude Questionnaire. Responses to the pair of opposing statements under the construct headings indicated the direction of the attitude. For example, an individual who agreed with the statement, 'The presentation is less important than the content of writing' and disagreed with the opposing statement, 'The presentation is more important than the content of writing' could be said to hold a consistent attitude indicating that they believed that the content of writing to be more important than presentation. Inconsistencies between responses were coded as such. Table Z.3 below presents the descriptive data indicating parental response patterns:

VARIABLE NAME	VALUES	FREQUENCY	PERCENT
Copy writing - appropriate or not	Appropriate	59	70
	Inconsistent	20	24
	Inappropriate	5	6
Direct teaching or exposure	Direct teaching	57	68
	Inconsistent	18	21
	Learn through exposure	9	11
Emphasis - content or presentation	Content important	40	48
	Inconsistent	30	36
	Presentation important	14	17
Handwriting - importance	Very important	53	63
	Inconsistent	25	30
	Unimportant	6	7
Parents - responsibility level	Not responsible	8	10
	Inconsistent	15	18
	Responsible	61	73
Pre-school writing - importance	Unimportant	4	5
	Inconsistent	13	16
	Important	67	80
Purpose - importance	Not necessary	3	4
	Inconsistent	12	14
	Necessary	69	82
Rated - under or over	Under-rated	56	67
	Inconsistent	15	18
	Over-rated	13	16
Responsibility - school or home	School	5	6
	Inconsistent	16	19
	Home-school	63	75
Spelling - accurate or not	At all times	28	47
	Inconsistent	15	25
	Not always	17	28
Spelling - importance	Primary	23	27
	Inconsistent	22	26
	Secondary	39	46
Spelling - lists or not	Not necessary	25	30
	Inconsistent	14	17
	Necessary	45	54
Teachers - responsibility level	Sole responsibility	10	12
	Inconsistent	23	27
	Shared responsibility with home	51	61
Writing - importance	Very important	63	75
	Inconsistent	17	20
	Unimportant	4	5

Table Z.3 – Pattern of parental responses to the Attitude Questionnaire

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On the whole, parental opinion tended to fall quite clearly in one direction or another, with responses to some of the statements showing little variation. For example, 82% of parents thought it necessary for children to appreciate the purpose of writing and only 4% considered it unnecessary. Opinion was more divided on the issues surrounding the statements about spelling, and this is reflected in the response patterns.

Teacher attitudes (Time 1)

Teachers also completed the Attitude Questionnaire in order to gather information about their views and expectations of the child's development as a writer. It is important to note that data was coded by child, so that as a single teacher will have taught a number of children. Hence, if a particular teacher had 6 children in her class who were involved in the study, her responses to the Attitude Questionnaire will have been represented 6 times in the data. Because there are fewer contributors, teachers' responses tend to show less variability and as a group they appear more definite and cohesive in their views than the parents'. This may also be related to the fact that teachers are a more homogenous group than the parents, and hence their views are more likely to be consistent. Generally, the opinions of parents and teachers go in the same direction although there are fewer inconsistent responses made by teachers. Table Z.4 below summarises the responses of the teachers at school entry (Time 1).

VARIABLE NAME	VALUES	FREQUENCY	PERCENT
Emphasis - content or presentation	Content important	53	88
	Inconsistent	7	12
	Presentation important	0	0
Direct teaching or exposure	Direct teaching	55	92
	Inconsistent	0	0
	Learn through exposure	5	8
Purpose - importance	Not necessary	0	0
	Inconsistent	0	0
	Necessary	60	100
Rated - under or over	Under-rated	37	62
	Inconsistent	18	30
	Over-rated	5	8
Responsibility - school or home	School	0	0
	Inconsistent	11	18
	Home-school	49	82
Spelling - importance	Primary	0	0
	Inconsistent	38	63
	Secondary	22	37
Spelling - accurate or not	At all times	0	0
	Inconsistent	0	0
	Not always	60	100
Spelling – lists or not	Not necessary	39	65
	Inconsistent	9	15
	Necessary	12	20
Copy writing - appropriate or not	Appropriate	28	47
	Inconsistent	32	53
	Inappropriate	0	0
Pre-school writing - importance	Unimportant	0	0
	Inconsistent	6	10
	Important	54	90
Teachers - responsibility level	Sole responsibility	0	0
	Inconsistent	10	17
	Shared responsibility with home	50	83
Parents - responsibility level	Not responsible	10	17
	Inconsistent	7	12
	Responsible	43	72
Handwriting - importance	Very important	48	80
	Inconsistent	12	20
	Unimportant	0	0
Writing - importance	Very important	53	88
	Inconsistent	7	12
	Unimportant	0	0

Table Z.4 – Teacher attitudes at Time 1

The area where the views of teachers' and parents' differed most sharply was with regard to spelling. Table Z.5 below highlights how parents and teachers differ regarding their views on spelling. Parents (47%) are much less likely than teachers (0%) to be tolerant of inaccurate spelling. Also, 54% of parents considered spelling lists to be the necessary means of developing knowledge in this area (54%) yet only 20% of teachers considered spelling lists a useful way of teaching 5 year olds to spell. Nearly two thirds of teachers at Time 1 (65%) considered spelling lists unnecessary.

	Spelling - accurate or not	Spelling - Lists or not
Parents	At all times=47%	Not necessary=30%
	Inconsistent=25%	Inconsistent=17%
	Not always=28%	Necessary=54%
Teachers (Time 1)	At all times=0	Not necessary=65%
	Inconsistent=0	Inconsistent=15%
	Not always=100%	Necessary=20%

Table Z.5 – Comparison between Parent and Teacher (Time 1) views about spelling

Teacher attitudes (Time 2)

Year 2 teachers also completed the Attitude Questionnaire in order to gather information about their views and expectations of the child's development as a writer. These can be compared with the responses in Table Z.3 (Parent attitudes) and Table Z.4 (Teacher attitudes at Time 1), and once again it can be seen that the direction of opinion is similar in most cases. Notable differences in teacher opinion are that a greater proportion of the teachers of older children considered copy writing to be inappropriate (25% as opposed to 0%) and would insist on correct spelling at all times (88% as opposed to 0). Also more teachers of children in Year 2 (20%) considered school to have sole responsibility for teaching writing whereas at entry no teacher cited this view. However it is important to reiterate that the sampling method means that an individual teacher could markedly skew the data, although these changes may be reflective of changes in curriculum emphases and responsibilities that occur as children move through Key Stage 1.

VARIABLE NAME	VALUES	FREQUENCY	PERCENT
Emphasis - content or presentation	Content important	43	72
	Inconsistent	17	28
	Presentation important	0	0
Direct teaching or exposure	Direct teaching	53	88
	Inconsistent	6	10
	Learn through exposure	1	2
Purpose - importance	Not necessary	12	20
	Inconsistent	1	2
	Necessary	47	78
Rated - under or over	Under-rated	43	72
	Inconsistent	0	0
	Over-rated	17	28
Responsibility - school or home	School	12	20
	Inconsistent	17	28
	Home-school	31	52
Spelling - importance	Primary	0	0
	Inconsistent	3	5
	Secondary	57	95
Spelling - accurate or not	At all times	53	88
	Inconsistent	0	0
	Not always	7	12
Spelling – lists or not	Not necessary	43	72
	Inconsistent	0	0
	Necessary	17	28
Copy writing - appropriate or not	Appropriate	37	62
	Inconsistent	8	13
	Inappropriate	15	25
Pre-school writing - importance	Unimportant	0	0
	Inconsistent	12	20
	Important	48	80
Teachers - responsibility level	Sole responsibility	12	20
	Inconsistent	19	32
	Shared responsibility with home	29	48
Parents - responsibility level	Not responsible	12	20
	Inconsistent	19	32
	Responsible	29	48
Handwriting - importance	Very important	39	65
	Inconsistent	21	35
	Unimportant	0	0
Writing - importance	Very important	56	93
	Inconsistent	4	7
	Unimportant	0	0

Table Z.6 – Teacher attitudes (Time 2)

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Factor analysis

All responses to the Attitude Questionnaire (parents' and teachers') were entered into a principal components analysis. Six factors with an eigenvalue greater than one (Kaiser's criterion) were extracted using an orthogonal (varimax) rotation. Together, these accounted for 65% of the variance. The statements from the Attitude Questionnaire that loaded most highly on to each factor are listed below:

Table Z.7 - Attitude Questionnaire (Version 3) Factor Analysis

Factor 1

Descriptor – **Shared home-school responsibility**

Statement	Weightings
Parents should be expected to show their children how to write	.70
It is important for pre-school children to write	.63
It is necessary for children to appreciate the purpose of writing	.74
Teaching writing should not just be left to schools	.64

Factor 2

Descriptor – **Correct spelling is not necessary at all times**

Statement	Weightings
Correct spelling should not always be insisted upon	.81
Children will only produce their best writing when they stop concentrating on correct spelling	.53
Spelling should be taught without learning lists	.64

Factor 3

Descriptor – **Presentation focus – writing well is not that important**

Statement	Weightings
The presentation is more important than the content of writing	.71
Being able to write well is not that important	.77

Factor 4

Descriptor – **Teacher's sole responsibility – over-rated**

Statement	Weightings
Teachers alone can teach writing	.51
The importance of good writing is over-rated	.76

Factor 5

Descriptor – **Neat handwriting is unimportant**

Statement	Weightings
Neat handwriting is not that important	.85

Factor 6

Descriptor – **Developmental/experiential approach**

Statement	Weightings
Children should learn to write without copy writing	.53
Children will learn to write just by being exposed to appropriate experiences	.83

Critique of the Attitude Questionnaire

As described in the Chapter 3, the attitude questionnaire was piloted on a group of mothers at a playgroup in Caversham. The population of this part of Reading tended to be from higher socio-economic groups, with a larger proportion educated to degree level than in the general population. This sample was not wholly representative of the social and educational backgrounds of those involved in the main study. This presented some difficulties:

1. Some of the parents involved in the main study had literacy difficulties, and the questionnaire had to be read to those who accepted the offer of help. This may have degraded the data as

   a) not all parents who had difficulties reading may have asked for assistance,

   b) the assistance may have influenced the responses.

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2. Some respondents commented that the negative questions were difficult to understand and confusing.

3. Respondents may not have had the necessary knowledge and understanding of the subject area to complete some items.

4. The meanings of questions may have differed for different respondents.

5. Some of the questions are ambiguous.

6. The questionnaire may have artificially created opinions on areas which individuals had never considered a position.

However, the attitudes of parents and teachers were considered important in that they drive behaviour and educational practices. By their nature they are changeable and difficult to tap, and the assessment measure devised was considered the best available option for trying to do this.

Unfortunately, the Attitude Questionnaire did not provide data that was significant when entered into the regression analysis.