The application of constructivist learning theory to homework practice: a case study of a trial of pencil-free approaches to home-learning in Key Stage Two Science

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Abstract

This case study, based in one primary school in Gloucestershire, explores the experiences and perceptions of children, parents and teachers in relation to homework; innovative, discussion-based science homework tasks are trialled.

A review of the existing literature reveals that primary homework is largely ineffective in enhancing children's learning, and can often cause or contribute to stress for children and parents; this stress often contributes to arguments in the home. A review of constructivist learning theory suggests that traditional models of homework take little account of children's learning needs, which can lead to task-oriented rather than learning-oriented approaches being adopted.

Semi-structured interviews were utilised in order to explore the perceptions of four individual teachers, and six children and six parents. Each child was interviewed with their parent, creating an ethical, dynamic and revealing research context in which the researcher was able to explore issues in some depth; a diverse range of perceptions were identified, with many participants, including teachers, expressing mixed feelings about homework.

'Pencil-free', discussion-based science homework tasks were trialled for one half-term in two classes in Key Stage Two. The researcher observed two class-based feedback discussions following children's engagement with pencil-free homework tasks. Following the trial of innovative homework tasks, children and parents were once again interviewed to explore their experiences and perceptions of the pencil-free tasks. Analysis of the observation notes and the interview transcripts suggests that, for most but not all children, there were benefits associated with the innovative approaches in relation to learning and stress-levels.

The research methods enabled the research objectives to be met. Further research in this area could explore the range of ways in which teachers are making homework more interesting and meaningful for children, whether this is positive in terms of the children's affective responses, and how teachers close the assessment loop on homework to provide meaningful feedback to children on their homework.

Author's declaration

I declare that the work in this thesis was carried out in accordance with the regulations of the University of Gloucestershire and is original except where indicated by specific reference in the text. No part of the thesis has been submitted as part of any other academic award. The thesis has not been presented to any other education institution in the United Kingdom or overseas.

Any views expressed in the thesis are those of the author and in no way represent those of the University.

Signed: Date: ....*March* 2011

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My family, who have put up with it all without too much complaint.

Contents

When my son, Ellery, was in year two, he brought home a science worksheet about 'materials'. He had to look in the kitchen and find things made of metal, wood and glass, and write down the names of the objects. Apart from hearing him read regularly, this was one of my first experiences, as a parent, of supporting my child with formal homework and it raised some uncomfortable feelings about how best to support my son's learning, and some difficult questions about the nature and purpose of homework. What was the purpose of the task, when he already knew the names of the objects and materials? Why was writing an important aspect of the homework task? What did the teacher hope Ellery would learn from it?

When he was in year four, he brought home a maths task in which he had to compare 330ml with half a pint, and decide which indicated the larger capacity. We did this by looking on a measuring jug and he filled in a few blank spaces on his worksheet; as soon as the last one was filled in he shoved it back in his bag and asked if we could play an end-game of chess, which we did. I know which activity did the most for his development and our relationship. Ask me now whether 330ml is more or less than half a pint and I haven't a clue and I'm fairly sure Ellery neither knows nor cares.

These experiences, and others like them, combined with my experiences as a primary school teacher and teacher educator, have provided the seeds from which this doctoral thesis has grown. The research is not designed as a criticism of teachers or schools, but provides a critical review of practice in relation to homework and offers one possible development.

*'Homework is usually seen as an intrinsically good thing –
particularly by those who don't have to do it or set it.'* Roberts (2009, pg 14)

Chapter One

Introduction

The aim of this chapter is to set out the rationale and objectives for this study. This will be achieved through a presentation of the personal and professional context for the research, an explicit consideration of my own views and value position in relation to the study, an acknowledgement of my associated professional activity in this area and, finally, an outline of the research questions and objectives.

According to Bolker (1998, p.4), of all the people who write doctoral theses, the lucky ones are those who *'have a burning question that they want to spend time answering'*. In that sense, I have been lucky, as I have had a very clear question for my research, and a fire in my belly to find an answer to it. I will outline the aims and objectives for the research in more academic terms in chapter two, but, to enable the reader to understand from the outset what this thesis is about, I will state the underlying question here: *What happens when constructivist learning theory is applied to homework practice?*

As a teacher, teacher educator, educational author and as a parent, I have, over several years, held grave reservations about the nature of homework in the primary years; I wonder if it is educationally worthwhile, given the amount of time teachers, parents and children invest in it. In this thesis, I will present the findings of a research project in which I have promoted the application of learning theory to homework practice, through the introduction of a 'pencil-free' approach to homework, in which the emphasis is not on the child writing something down, but on the child discussing ideas and doing practical activities with their parents or carers or other members of their household.

Recent research by Hughes and Greenhough (2002a) reveals a diversity of views about homework at Key Stage Two (children aged seven to eleven); some parents strongly support it and see value in it while others see it as making excessive demands on their children's time and energy. Interestingly, their research also

shows that for many parents and headteachers the value of homework is symbolic: it is a sign of a good school rather than having any intrinsic value as a learning experience.

1.1 Rationale and personal, professional context

In this section I aim to set out, explicitly, my own value position and views, both as a teacher and parent, explore the current policy context in which primary schools are operating, interrogate the research on which that policy is based and consider other research that provides an insight into the value and effectiveness of homework.

The rationale for exploring homework through my research is both personal and professional. From both perspectives, I hold reservations about the current state of homework in the primary years. As a parent I worry about the Orwellian overtones in a society where parents feel pressured to act as 'agents of the state' (Smith 2000) in forcing their children to complete tasks that seem pointless and boring, and the development of government policy on homework that has preceded research (Whitty 2007). As a primary school teacher, deputy headteacher and, now, as a teacher educator, I am concerned that the educational fallout caused by homework outweighs the potential benefits. Homework can be a useful tool to extend children's learning through reinforcement and enhancement of the skills and knowledge developed through the school day; it can also be a way of enhancing home-school partnership as parents are able to see and understand what their children are learning at school. However, very often, in reality, homework can reinforce negative attitudes to learning, as children struggle to complete more work at the end of a tiring school day. Parents and children can find their relationship strained by the demands of homework, and teachers and pupils also find that homework, or non-completion of homework, causes tensions in the classroom, and this can also lead to the home-school relationship being strained.

The dominant model for setting homework is for the teacher to provide the child with a worksheet that needs to be 'filled in' or 'completed' or 'done' and then returned to school to prove it has been 'done'. My belief, based on my professional experience and understanding of constructivist learning theory, is that this model is fundamentally flawed because of its focus on completion of homework tasks rather

than learning, as Kohn (2006, pg. 15) suggests: *'As a rule, the point of homework generally isn't to learn, much less to derive real pleasure from learning. It's something to be finished'*. Through this research, I planned to investigate this belief and to explore a new model of homework, a model based on constructivist learning theory.

In choosing to research homework I recognise I am stepping into a very complex social arena in which government policy, school standards, children's achievement, parental choice, school partnership, and parent-child relationships all play a part, and at the heart of which are children, whose voices are often lost amidst the political clamour.

The timing has been right to explore these issues. Since the publication, in 2003, of the Primary National Strategy document *'Excellence and Enjoyment'* (DfES 2003) schools have enjoyed more freedom to be creative with their curriculum approaches. In 2007, the Department for Children, Schools and Families published *The Children's Plan*, in which Ed Balls (then Minister for Education) states:

> *'We want every young person to achieve their potential and enjoy their time in education. Parents' support for their child's learning is an essential foundation for achievement. Parents told us they want to be more involved in their children's education, and schools see the benefits of greater engagement with parents'* (DCSF, 2007, pg 53).

In the last few years, it has looked as though there has been a shift in the direction of government policy in regard to primary schools, with an increased emphasis on creativity and creative learning. During the time in which this research has been conducted, the signs from the, then, Labour government[1] suggested that were a school to experiment with its homework policy and explore ways of making homework do more to enhance home-school partnerships and learning then it would

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[1] Historical/Political note: The field work for this research was conducted in 2008 and 2009, in what we now know were the last two years of the Labour Government. The Conservative / Liberal Coalition Government took office in May 2010, by which time the literature review, field work and data analysis had been undertaken, and much of the thesis drafted. In most cases, therefore, any reference within this thesis to 'The Government' should normally be assumed to relate to the Labour Government, 1997 to 2010. The Coalition Government has not yet issued any new guidance for schools on homework, so the 1998 guidance is still considered 'current'.

not be a cause for concern, particularly as schools are now more reliant on their own self-evaluation as a central aspect of the inspection process.

Meanwhile, the latest policy guidance on homework for primary schools remains the DFES guidance published in 1998. Whitty (2007) suggests that there is an inherent tension between policy and research and this has definitely been the case in the development of homework policy thus far. I hope my research can make a contribution to future policy development.

1.2 My value position and views

In 1998 I had just taken up a post as year leader for year five in a large middle school in the London Borough of Merton. The school homework policy was for us to set four pieces of homework a week, but the year five team felt that this was too much and placed unsustainable demands on the children and staff. We were in the process of drafting a proposal to present to the headteacher suggesting that homework should be limited to three pieces of easily managed homework a week when he announced that new guidelines from the DfEE were that in year five the expectation should be for five lots of homework a week, each of thirty minutes duration. The head did not see that the issue could be debated; if the DfEE suggested certain guidelines, Ofsted would certainly expect that schools should adhere to them, even though they were non-statutory.

As a teacher I have always had a number of frustrations and misgivings about setting homework for primary school children. In my experience homework can undermine the positive relationship between pupil and teacher if the teacher feels that they are expected to nag children if they do not submit their work. Since the teacher/pupil relationship is absolutely key to a successful learning environment in the primary years (Alexander 2010) I can see that the corrosive pressure of homework expectations can be damaging.

One argument put forward in favour of homework is that it is useful in extending the learning day for pupils. I have never been persuaded by this argument, as it takes a teacher at least fifteen minutes to explain a homework task to the class and another fifteen minutes to collect it in and monitor (or nag) non-submission offenders. Add to

this the time teachers take to prepare and mark the homework, between one and four hours a week according to Weston (1999), and we could ask if this time could have been better spent preparing good classroom-based learning experiences. As a teacher I found it unmanageable to set five tasks a week for thirty children and provide any kind of meaningful feedback for them, and deeply frustrating that so much of my time was taken up managing the setting, collection, marking and filing of homework sheets. When asked by Ofsted, headteachers claimed that this was good use of their teachers' time (Weston 1999). I'm not sure that any other answer was possible: they certainly could not say that they asked their teachers to waste their time.

My main objection to homework, as a teacher, has been that I have never been convinced that it is effective in enhancing children's learning. Most of the debates about homework tend to be about how much children should get, how long they should spend on it and what should be done if they do not do it. Many people seem to accept that homework has intrinsic value, that it so obviously is good for children, as reported by Kohn (2006) and Hughes and Greenhough (2002a). Some offer the argument, which I find unconvincing, that children in the primary years should be given homework to prepare them for the homework they will receive in secondary school. But, does it actually help children to learn anything or to feel more positive about learning? Holt (1982, p. 14) describes his unease that for many children their intelligence becomes disconnected from their schooling, and I share this unsettling feeling and fear it applies all too readily to many primary school children's experience of homework; it simply does not engage their intelligence and therefore does nothing positive for them.

The main consideration for teachers when setting homework is often about the practicalities of managing the process with the minimum of fuss and work; this usually means finding a photocopiable sheet. This often results in teachers setting homework tasks that they would never have devised themselves, but they settle for them because they are there.

As a parent I often feel deep frustration at the apparent pointlessness of homework tasks given to my children and a resentment at being caught in the middle-class parent trap. If I do not make my children do their homework I worry that they will be

nagged by their teachers and yet I feel that the homework does them no good and playing a game of chess or snap with them would be time better spent; I feel resentment at being caught between 'supporting the school' and acting on my own values. Smith (2000, p. 316) expresses my feelings very well: *'as a parent, I feel under increasing pressure to impose external expectations on my own children'*.

I feel further frustration that so many of the tasks set by the school are just so boring; set, no doubt, on the pretext of reinforcing learning they do nothing but reinforce negative attitudes towards learning and the feeling that learning is a chore and something always forced upon children.

Schools and teachers often share these frustrations but feel bound by government policy which sets out expectations. In chapter two, I shall set out the current government guidelines on homework in primary schools and then go on to consider the research on which the policy is based.

However, homework may have some potential to enhance children's learning and enthusiasm for learning if they are asked to engage in the kind of activities that might promote these intended outcomes. The central aim of this research is to explore whether homework in primary schools can be improved through engaging children and their families in learning-centred activities based around discussion of scientific concepts and ideas.

1.3 Associated professional activity: 'pencil-free' homework resources

An important part of my professional activity in this area has been leading a small team of colleagues in working with a publisher to create pencil-free, *Active homework* photocopiable resource books for teachers; the science book (Forster et al, 2010) and English book (McGowan et al, 2010) were published in 2009, and the Maths book (Parfitt et al, 2011) in 2010. The rationale for the books has been to provide teachers with homework tasks that are easy to use and administer, and promote learning-centred activity and discussion in the home: home learning, rather than homework. The development of the books and this research project were closely aligned, with some of the activities developed for the science homework book used in the research project; this will be discussed further in chapter six.

1.4 Research Aims and Objectives

In short, my research plan is designed to see if homework in the primary years can be improved by working with teachers to change the nature of the tasks that are set, by moving from worksheets that need to be 'completed' to tasks that are oriented around activity and discussion. The main players are children, parents and teachers and I intend to discover their views on the current state of homework and the 'new' approaches I am intending to develop in collaboration with teachers.

Through the process I aim to answer the following questions and achieve the following objectives.

Research questions:

1   What do primary teachers, parents and children think about homework, and how do they engage with homework?

2   What is the impact of primary school homework on children's learning, their enthusiasm for learning and the relationships of children, parents and teachers?

3   Can children's primary science homework experience be enhanced through tasks that focus on activity, discussion and cognitive experience?

4   Can innovative science homework have a positive impact on children's learning and home/school relationships?

The objectives are to:

1   Understand the beliefs and attitudes held by primary school teachers, parents and children about homework and explore how these parties engage with it.

2   Evaluate the impact and value of homework on children's learning and enthusiasm for learning, and on teacher-pupil, parent-pupil and parent-teacher relationships.

3   Understand the perceptions of teachers, pupils and parents of innovative, active and discussion-based homework in primary science.

4   Evaluate the impact and value of pencil-free science homework on children's learning and enthusiasm for learning, and on teacher-pupil, parent-pupil and parent-teacher relationships.

Although my particular focus is science homework, I will refer to existing research into, and discuss in general terms, generic aspects of primary homework as there is very little existing research about science homework specifically.

1.5 Conclusion to chapter one

In this chapter I have set out the personal and professional context for the research, and established my own value position. I have presented an argument which demonstrates why the research is worthwhile and timely. The potential benefits of homework have been explored, as have the many potential limitations, and questions have been raised about the current policy context. In the following chapter I will present a review of the existing literature in relation to the research, considering the current educational policy, the research it is based on, other research on homework and an introduction to constructivist learning theory.

Chapter Two

Review of literature

Einstein claimed it was a miracle if children's curiosity survived their formal education
(Hayes, 2007, pg. 146)

The aim of this chapter is to set out the current research and policy context in relation to homework in primary schools, and in relation to learning in primary science.

The literature review falls into two main sections and a shorter, but important, third section: the first relates to the policy and research context of current homework practice, the second explores the predominant learning theory in primary science teaching, 'constructivism', and includes detailed consideration of the work of two giants in the field, Jean Piaget and Lev Semenovich Vygotsky, in addition to more contemporary thinkers on the nature of children's learning in primary science, and the third section explores the importance of formative assessment in supporting children's learning, with a particular focus on the distinctive nature of primary science.

2.1 Review of literature part one: policy and research context

In this section I will explore the current policy context in relation to homework in which primary schools are operating, interrogate the research on which that policy is based and consider other research that provides an insight into the value and effectiveness of homework.

2.1.1 Government policy

The government's guidance for schools on homework is set out in the policy document 'Homework: Guidelines for Primary and Secondary Schools' published in 1998 by the Department for Education and Employment (until recently the Department for Children Schools and Families, and now the Department for Education). Although the guidance is non-statutory, it sets out in some detail the expectations about how much homework children of different ages should be set and how schools should go about establishing a homework policy. It outlines what the

main perceived benefits are from children doing homework and summarises some of the research on which the policy is based.

The document begins:

> Research over a number of years in this and other countries has shown that homework can make an important contribution to pupils' progress at school. An OFSTED Report published in 1995 (Homework in Primary and Secondary Schools, HMSO, London) confirmed that, 'many pupils and their parents saw work done at home as a valuable and essential part of school work... .' Also the 1996/97 OFSTED Annual Report noted that homework is important at all stages in a child's education and that when used properly, it extends the challenge open to the pupil and ensures that teaching time is used to maximum effect. In this country there is evidence that pupils in the highest achieving schools spend more time on learning activities at home than pupils in other schools.

(DfEE, 1998, p. 3)

As the opening paragraph of a significant government policy document this raises a number of claims and quasi-claims that are, at least, challengeable, as I will discuss in the following paragraphs. In the next section I will consider in some detail the research evidence on which the policy is based but it is worth noting here that Sharp *et al* (2001) suggest that there is very little recent research on homework in this country, particularly at primary level, and that there is an urgent need for further research into the effectiveness of homework strategies and the impact on achievement.

The claim that homework can make an important contribution to pupils' progress is, therefore, questionable as there is, currently, little evidence to support it; that this should be backed up with evidence that many pupils and parents see homework as valuable and essential is an insufficiently strong basis on which to support the claim. Pupils' or parents' views on the value of homework do not of themselves provide an insight into the effectiveness of homework in enhancing pupils' learning. Furthermore, other research (Solomon, 2002; Smith 2000, Kohn 2006) suggests that many parents would provide an alternative view on homework in which its value is both questioned and challenged. Alexander (2010) found that many parents

question the need for homework in the primary years and one argued strongly that it undermined children's confidence, although some welcomed it.

My main criticism of this opening paragraph relates to the final sentence. Although a causal link between time spent on homework and achievement is not actually claimed it is pretty clear that a causal link is heavily implied. The suggestion appears to be that homework is obviously a good thing because pupils in the highest achieving schools spend more time on it than in other schools (Weston, 1999). However, it is impossible to claim a causal link between time spent on homework and high achievement from this evidence, and a more pragmatic and common-sense interpretation might be that the highest achieving schools have a disproportionately high number of children from socio-economically advantaged families who readily conform to the homework regime and who might spend more time on homework because they are high achieving, rather than the other way around, a view supported by the Canadian Council on Learning (2009) and Patall et al (2008).

Following this introduction, which, as I have demonstrated, is open to challenge, the policy goes on to outline how schools should establish homework policies, the purpose of homework and most crucially the 'amount' of homework recommended for each age group. The policy clearly sets out recommended time allocations for homework which gradually increase up to children in years five and six doing thirty minutes of homework a day, with a further twenty minutes of reading if the main task is not related to reading. Although the guidelines state that *'the amount of time spent on homework is much less important than the quality of tasks set and the way they are planned to support learning'* (1998: p. 11), for my school, and perhaps many others, the time allocations became gospel, the only bit of the guidelines that really mattered, because they were the easiest part of the guidelines for Ofsted to criticise in an inspection.

2.1.2 Research upon which the policy is based

In this section I shall consider what underpins the policy, whether it is research based, and what the quality of the evidence is. The policy claims that the *'guidelines draw on extensive research and analysis into current good practice schools. They are informed, in particular, by a study conducted by OFSTED in 1997 ...'* (1998: p.4).

However, the Ofsted report referred to here, published formally in 1999, reveals that, far from forming the basis for the government's thinking on homework, the research report arose 'out of the Government's interest in homework as an integral element of learning, as set out in the 1997 White Paper, Excellence in schools' (Weston, 1999, p7) from which it quotes:

> 'Homework is not an optional extra, but an essential part of a good education. There is clear evidence that it helps pupils – in particular those from disadvantaged backgrounds – reach higher standards ... The enormous inconsistencies between schools mean that hundreds of thousands of primary children are missing out on opportunities to build on what they learn in the classroom'.

It is immediately clear that government policy was a step ahead of any research carried out, and that the intended use of the research was to add credence to the policy already drafted. Add to this the fact that the research was carried out by Ofsted for the DfEE and we might be forgiven for suspecting a slightly incestuous relationship in which Ofsted, under the leadership of the politically astute Chris Woodhead, was only too keen to secure its future under New Labour by supporting the whim of its new political masters.

The Ofsted report brought together the results of five strands of the research: telephone surveys to headteachers or senior teachers (368 schools), case study visits (29 schools), questionnaire survey of pupils (2 schools), a review of recent research by NFER, and analysis of the replies to consultation on the 1997 White Paper Excellence in schools. While the scale of the enquiry is very appropriate, there is a serious flaw in the research: it was carried out by and for the same institution responsible for inspecting schools in England and Wales. This will surely have had an impact on the responses given, particularly when we consider that in the late 1990s Ofsted was quite literally feared by many schools and teachers (Dean, 1999).

The impact of this is indicated through some of the findings; when answering questions in the telephone survey headteachers must have been influenced by the knowledge that someone from Ofsted was on the other end of the phone. No matter how much they were reassured about the confidentiality of the research, no

headteacher would be likely to relax and completely speak their mind, for fear of inspectorial reprisals. For example, a key finding is that *'teachers took homework planning as seriously as lesson planning'*. If I was a headteacher and Ofsted phoned me and asked if my school took homework planning as seriously as lesson planning I would hardly say 'Oh, no, we don't really bother'.

Much of the 'good practice' identified by Oftsed is done so purely on the basis that schools know what Ofsted thinks is good practice, and ensure that Ofsted gets to see or hear about this practice at their school. This leads me to identify another major flaw in the research: *'the survey and case study schools were all selected because they had received a good rating from OFSTED, either specifically for homework or for teaching and learning generally'* (Weston, 1999, p. 11). The research, with its title *'Homework: Learning from practice'*, might be expected to investigate and reveal good practice with regard to homework, and we might therefore expect that the research would consider all kinds of homework practice and attempt to draw some tentative conclusions about comparative effectiveness and value in terms of children's learning. The approach used, however, is rather more circular and self-fulfilling. Ofsted has already decided what constitutes good practice and identified schools that fit its own definition of a good approach to setting and assessing homework. When asked to research into effective homework Ofsted already knows the answer, and uses the 'research' project to enquire from the schools that it has already identified as having good practice in homework what it is that they do when it comes to homework. Unsurprisingly, their findings support their views about effective practice and, just as unsurprisingly, they also support the views expressed by the New Labour government, as described by the then Education Secretary: *'Homework is not a punishment and it is not a chore. It is an essential part of a good education'* (Blunkett, 1997). The Education Secretary was, furthermore, scathing of research which appeared to counter his view that homework was a good thing (Hughes and Greenhough, 2002b).

The process demonstrates the subtle ways in which policy can be 'supported' by research. In this case, a government expresses its views on the importance of regular homework for primary school children and asks its school inspection service to research this idea in order to 'inform policy'. Ofsted use primary schools they have already identified as setting regular homework, having already identified this as

good practice, as the basis for their research which supports the government's view and is therefore drawn upon to help formulate policy on this issue.

In the following section I will consider published research on the topic of homework and discuss what it reveals about the value of homework as an approach to enhance learning and the social impacts of homework.

2.1.3 Research into the impact of homework on learning

Research into the impact of homework on learning has largely been concerned with whether more really is better, and the impact of homework on pupil attitudes.

A number of meta-analysis studies (Cooper 1989a, Bonyun 1992, Sharp 2001) suggest that there is a strong correlation between time spent on homework and pupil achievement in secondary school pupils, and it seems that these results have influenced the way that government policy has been formed on homework in the primary phase.

However, research into the educational value of homework in the primary years is inconclusive (Hughes and Greenhough, 2003). One of the reasons for this is that there have not been many studies into homework in primary schools, particularly in English schools, but even those studies that have been carried out have not revealed any compelling evidence to support the view that a secondary-style homework regime is effective for younger children.

Cooper (1989a / 1989b) concluded that homework had a 'negligible impact' or 'non-significant effects' in the primary school years. Where the effects were noted to be significant they were considerably smaller than the effects seen in high school studies. One of the few studies carried out in England was a major study by Farrow et al (1999) involving twenty thousand pupils from nearly five hundred schools, from which they conclude that there was only a tenuous link between achievement levels and the amount of homework set and some 'very slight support' for the idea that schools that set more homework for maths and science get better results. They are very clear that their results do not support the 'more is better' assumption. This is supported by LeTendre and Akiba (2007), cited by the Canadian Council on Learning (2009), and Hallam and Cowan (1998) who agree that the case for

homework is clear in the secondary phase but much less clear in the case of primary schools; Hartley and Branthwaite (2000) cited in Sharp et al (2001, p. 52) agree that there is 'insufficient evidence to support the DfEE recommendations regarding time on homework for primary-age pupils'.

International studies in the secondary education phase have indicated that there is a curvi-linear relationship between homework and achievement. Too little and too much homework have similarly poor effects on attainment compared with moderate amounts (Beaton et al (1996a / 1996b); the Canadian Council on Learning (2009, pg. 48) identifies 'a point of diminishing returns for amount of homework assigned'. However, the research of Elliott et al (2001) found that there were significant cultural differences that were likely to be important in considering whether children benefited from their homework. For example they found that Russian children were likely to spend more time on their homework than children in either the USA or the UK and that their general attitude to school and learning was much more positive.

Unsurprisingly, some research suggests that other factors are much more significant than homework with regard to achievement; Epstein (1998) found that there were strong correlations between educational achievement and socio-economic indicators such as ethnicity, urban or rural living, and the make-up of the nuclear family. Cooper (1999) found that children who engaged in a range of after-school extra-curricular activities were likely to do better in tests, although causality could not, of course, be claimed; again, this could well be linked with socio-economic factors, as middle class children may well have more access to a range of after-school activities and be encouraged by their parents to join clubs.

Simplicio (2005, p. 140) has a simple objection to homework: 'many homework assignments simply do not accomplish the educational goals they were designed to achieve'. His argument, though straightforward, is convincing: 'if a student cannot do one of the problems, she most certainly cannot do twenty of them. Conversely, if a student grasps the basic mastery of a math concept, having that student complete twenty similar problems is repetitious and a waste of time'. Without a teacher there to guide and support the learning, the pupil either can do the work or they cannot, and progress is not assured. Hughes and Greenhough (2002a, p.39) support this view: 'We observed several cases where students already knew or understood the

material they were supposed to be learning, or where they managed to complete the task successfully but still had difficulties in their understanding, and also found that most of the Key Stage Two children they interviewed did not know what homework was for, suggesting they do not see a clear link to their learning.

This raises the question: if research suggests that homework in the primary school is not beneficial in terms of raising educational achievement, perhaps it has other benefits? Could it enhance positive attitudes to learning and enhance home-school partnerships. Small-scale research by Bryan and Sullivan-Burstein (1998) focused on improving children's commitment to completing homework and suggested that some approaches were successful including, for example, using real-life topics for homework and introducing a reward scheme. I find this kind of research rather dispiriting, as the project is aimed at getting children to do more homework without any consideration of whether this is a valuable approach for enhancing the children's learning. We might be able to assume that the students have a better attitude towards homework (since they are doing more of it by the end of the research project) but this reveals nothing about whether their attitudes to learning have been enhanced. In this context we should remember that children '*see school almost entirely in terms of the day-to-day and hour-by-hour tasks that we impose on them*' (Holt, 1982, p. 37). Children tend to be task focused, rather than learning focused, and just 'getting them to do their homework' can easily reinforce this view, particularly as Xu and Corno (1998) reveal that many children see homework as a means of gaining approval from teachers and parents.

Some research suggests that primary age children value homework with OFSTED claiming that their survey found that '*most pupils accepted and even enjoyed homework*' DfEE (1998, p. 32). I wonder to what extent this could be considered to be reliable data; if a youth worker asked the same children the same question would they give the same answer as they did to the OFSTED researcher? My own findings, presented later in this thesis, would certainly challenge this claim.

Several research reports suggest that parents generally support the use of homework (Barber et al, 1997, Xu and Corno, 1998), but again most of the research is focused on secondary age pupils. Some research focuses on the role of parents in supporting their children with their homework and on the development of home-

school partnerships through homework. Forster (2000) suggests that much policy is based on claims about the value of homework as a home-school link in addition to its value in taking learning out of the classroom and into the home. But as Forster (2000, p. 23) notes: *'All this is quite a lot to ask from homework - particularly the homework with which you and I may be familiar'.*

2.1.4 Social impact

In this section I will consider research that provides an insight into some of the impacts of homework on family relationships. Lacina-Gifford and Gifford (2004, p. 279) refer to a Public Agenda survey to claim *'almost half of parents reported having a serious argument with their children over homework.'* They go on to suggest that parents and children are both under too much pressure regarding homework and propose that homework needs to be reshaped in order to *'fit the real world and fit the needs of the typical student'* by having a stronger social element to it, in which peers can work together. Research by Becta (2010) suggests that almost a quarter of parents frequently find themselves unable to help their children with their homework because they do not understand it; even when parents do understand the work, 58% of the two thousand children surveyed, who were aged between nine and thirteen, reported that their parents' explanations confuse them as they are different to their teachers'.

Solomon et al (2002) support the view that homework can be problematic within the home. In their article titled *'Helping with Homework? Homework as a site of tension for parents and teenagers'* they argue that government policy on this issue is based to a large extent on reports that are *'only concerned with overall school effects rather than individual attainment, background or experience'* (2002, p.604), and does not take account of the potentially damaging effects on the relationships between members of a family as the result of 'colonisation' of home by school. As Kohn (2006, pg. 11) notes: *'No discussion about homework should be taken seriously if it fails to address the impact on real children'.*

Smith's (2000) article, titled *'Whose childhood? The politics of homework'* is thought-provoking as he considers if the imposition of homework on family life is really achieving the home-school partnership as outlined by the government or whether the

government is really applying pressure on parents to act as agents of the state in enforcing an external requirement on their children. He argues that children have been marginalised in the home-school agreements and warns that 'to see children merely as passive consumers is to overlook critical aspects of their experience and competence' (2000, p. 322). He suggests that children accord homework low importance and would like to be able to engage intelligently in learning that is not highly prescriptive and limiting. He wonders whether a child-centred approach might be possible if we began by asking children what they thought about homework and school.

Heywood-Everett (1999) argues that home-school partnerships are based on a business model which has become part of the way in which politicians and educationists talk about education. He raises key questions about who the partners really are, what they invest in the partnership and whether they have any shared aims or responsibility, and whether a business model is appropriate: 'a final problem with the outright application of the business metaphor to education (and in the end why it fails the child) is that it relegates the critical human being, the learner at the heart of the process, to a product position' (1999, p. 274). For me, this is a crucial issue: government is trying to 'improve' 'standards', and it perceives parental partnership in the administration of homework to be an effective way of achieving this. But children are not products that can be 'improved' through more work and parents are not workers on an educational production line. They have a commitment to their children and their children's success, but this is not necessarily a shared vision with the government. A narrow focus on exam and test results completely misses the point about what it is that most parents want for their children: confidence, social experience, physical and sporting enjoyment, musical development to suggest just a few.

Interestingly, I found no research that reports on the impact of homework on the pupil-teacher relationship; considering the importance of this relationship in the primary school (Alexander, 2010), this is an area where research is required.

2.1.5 Getting it 'set' and getting it 'done'

Research suggests that teachers often find themselves setting homework even when they are not convinced of its effectiveness. Roberts (2009, p. 14), reporting on an interview with Martin Hughes (cf. Hughes and Greenhough, 2002) reports that many class teachers *'felt under pressure to set homework on particular days, whether or not it fitted with what was going on in lessons. "The phrase that kept coming up was 'homework for homework's sake'," says Hughes. One teacher went as far as describing it as "a time-consuming monster that provides very little benefit to the kids"'.*

Teachers are increasingly speaking out against homework in primary schools: Paton (2009, pg. 12) reports on a debate at the conference of the Association of Teachers and Lecturers: *'Homework should be banned in primary schools because it is a "waste of children's time", teachers said yesterday ... a teacher from Leeds said: "Homework is a waste of children's time, teachers' time and from what I have heard parents think it's a waste of time as well.'*

Much of what is written for parents about homework, even in 2009, focuses on 'getting it done' rather than getting something intrinsically valuable out of it. For example, Parentlineplus (no date), in their pamphlet *'Homework is an uphill struggle'*, provides guidance for parents on how to support their children with getting homework done, and suggest ways in which homework can cease to be a battle, and, instead, becomes *'an essential part of family life'*. Dawson (2009, pg 26) also provides a guide for parents on homework, in which she emphasizes the importance of *'homework routines'* and *'incentive systems'*. She apparently sees no contradiction here with her suggestion that homework *'helps children learn how to plan and organize tasks, manage time, make choices, and problem solve'*, despite the fact that all her guidance is designed to help parents plan and organize their children's tasks and time, and solve the problem of getting their children to complete the homework tasks with as little 'hassle' as possible. According to Bryan and Burstein (2004), the reason that much of the recent research on homework has focused on completion issues is that research by Polloway, Epstein and Foley (1992) suggests that 28% of students have difficulties completing homework.

2.1.6 Conclusions

It is very clear from the research that I have looked at for this section of the review of literature that the government's guidelines for homework were originally based on nothing more than a feeling that homework in secondary schools was intrinsically valuable and therefore a secondary model could be applied to primary with positive outcomes. This view never was research-based, but research was then used to try to sand-bag the position; the government commissioned research by Ofsted which was clearly flawed by being based on a hand-picked sample of schools with 'good practice' but was used as justification for the policy.

It has also become clear that there is very little existing research into homework in the primary years, particularly in the UK, and what little there is suggests that homework in this age-group does not have any significant positive impact on educational achievement. Research does, however, suggest that homework can cause tension between members of a family, and therefore its overall impact may be negative.

However, some research suggests that children value and sometimes even enjoy homework, and they prefer a variety of interesting activities rather than mundane and repetitive tasks; unfortunately, most homework falls into the second category. The Canadian Council on Learning (2009, pg. 48) suggests that homework that encourages 'active student engagement is likely to be effective', and, having reviewed several studies of this kind, reports that 'homework with an enhanced pedagogical technique is likely to increase, and unlikely to impede, academic achievement'. This is a particularly pertinent finding in relation to this pencil-free homework research project.

There is a clear need for more research into homework in the primary years in the United Kingdom, in particular considering its educational and social impact. I do not believe homework is going to go away as too many politicians believe in its intrinsic value, so we now need to find ways of making it better. We need to provide learning contexts that enable cognitive development and trust children to work in them, as Holt (1982, p. 35) puts it so well: 'The teacher first of all tries to prepare a place – a physical, intellectual and emotional space – in which the students will have a good

chance of leading a fairly interesting life. Then the teacher's job is to see what the students do in that space'.

Hughes and Greenhough (2002a, p. 39) make a neat observation that shows why further research is so necessary in this area: *'In our research, homework was essentially a series of tasks to be completed away from the classroom. It was usually assessed in terms of whether the task was completed appropriately or not. But successful task completion is not the same thing as learning.'* Whilst it is not possible, through this research, to prove whether pencil-free homework has a significant effect on learning, the review of literature suggests that this research project is well-positioned and well-timed.

In this section of the review of literature, I have outlined the policy context and explored research related to the policy. I have synthesised research and other literature that provides an insight into the impact of homework on learning and relationships. In the following section of the review of literature, I will outline and critique the constructivist learning theory and show how it relates to the research project.

2.2 Review of literature part two: constructivist learning theory in primary science

I argue that homework policy and practice are currently largely devoid of learning theory. One of the original features of my doctoral research, which enables me to make a contribution to knowledge, is the exploration of the application of learning theory to the issues of homework in the context of primary science.

In trying to generate learning theories there are, at least, three significant difficulties: firstly, learning is random and chaotic, secondly it is very difficult to analyse and elucidate what is going on inside our own heads, and, finally, it is impossible to know what is going on in other people's heads. Learning theorists have attempted to transcend these difficulties by suggesting models by which learning can be considered.

In this section, I aim to present a summary of the current understanding of the constructivist learning theory in relation to primary science. In doing so, I shall outline and critique the theories of learning proposed by two classic theorists on this subject, Jean Piaget and Lev Semenovich Vygotsky, whose ideas have been hugely influential in the field of primary science education. In critiquing these theorists I shall be drawing on my first-hand reading of the original translations of Vygotsky and Piaget, and the work of more contemporary writers, such as Wood (1988) and Light et al (1991), and science educators such as Harlen and Qualter (2004) and Naylor and Keogh (2000), and relating the thinking to the issue of homework in the primary school.

I will begin by explaining why learning theories in general are important to my proposed research project; I will return to this theme at the end of this section and consider the implications of the theories that have been discussed.

This research project is underpinned by a belief that science homework in the primary school years could be less task-oriented and more learning-oriented if the activities provided opportunities for children to discuss and share their thinking and learning with adults or siblings within the home. The question that could reasonably be asked is this: what underpins my beliefs about learning; is there any substantive

basis for my ideas about learning, or are they based purely on my intuition and reflection on my experience as a teacher?

In reviewing the work of Piaget and Vygotsky and others I will show that there is a significant body of evidence and theory to support my views, whilst acknowledging that I am most likely to accept theories that do what I want them to do: they support my ideas.

2.2.1 A brief introduction to Piaget and Vygotsky

According to Elkind (1968), Piaget, who was born in 1896, was a biologist and psychologist, but '*best understood as a genetic epistemologist*', concerned with the origins, development and evolution of knowledge in children. It is important to note that Piaget was not an educator or educationist, as Elkind (1968, pg. xv) makes clear: '*If one looks carefully through Piaget's writings one seldom, if ever, finds an attempt to deal with concrete problems of pedagogy or child rearing*'. Piaget's work, therefore, has to be read through the lens of practical experience in teaching and learning and research undertaken into children's learning in primary science.

Piaget's main contribution to the debate about children's learning is his suggestion that children actively 'construct' their own knowledge of the world, and that their ability to do so is dependent on their 'stage of development'.

Vygotsky was also born in 1896 and studied linguistics, social science and philosophy, although he was primarily a psychologist; education was one of the main areas of his study and research. While he was not an educator, his work was more directly related to education than that of Piaget; according to Bruner (1962, pg *v*) '*Vygotsky's conception of development is at the same time a theory of education*'.

Vygotsky's main contribution was his assertion that children's capacity to learn through instruction was a central aspect of intelligence and that this capacity had to be considered prospectively rather than retrospectively, through the utilization of the 'zone of proximal development'.

2.2.2 Stages of development

Piaget viewed thought as 'internalised action' and set out the development of this 'operational thinking' in four stages from birth to adolescence.

Neonate and infant: Piaget recognised the extraordinary development of the mind during this stage of the child's life, and described the child as developing a 'practical intelligence'. Initially, the young child does not differentiate between themselves and the external world, but explores and interacts with the world, and him or herself, using all their senses. Piaget (1968, pg 9) describes the child's mental development at this stage as: '*no less than a conquest by perception and movement of the entire practical universe that surrounds the small child. ... a "sensorimotor assimilation" of the immediate external world*'.

Early Childhood from Two to Seven: At about age two, the acquisition of language brings about another revolution in the child's development. Piaget saw this age as 'The Genesis of Thought' as the child is able to internalise words, through interaction with adults and peers and through play. He observed particularly that children at this stage often speak to themselves constantly in monologues, and internalise language as a result. Piaget believed children to be 'pre-logical' or 'pre-operational' at this stage, happy to make assertions without trying to support them with reference to facts, relying instead on intuition.

Childhood from Seven to Twelve: Piaget saw this as the age in which children begin to develop logical thought and become less egocentric, able to see the point of view of others and understand shared rules, such as in games. Piaget (1968, pg 48) describes the child as developing a '*concrete operational kernel of intelligence*', as they are able to perform many mental operations in mathematics, geometry, mechanics and physics, demonstrating an understanding of issues such as reversibility and conservation, and, most significantly, demonstrating a capability to reason. These are all 'concrete' operations, concerned with reality and tangible objects which are being manipulated mentally. In the debate over homework in the primary years it is this stage of development that is most significant as it correlates closely to Key Stage Two, and, from a Piagetian point of view, we might ask what contribution homework makes to the development of the concrete mental operations

or the child's capacity to reason. Several research projects (Cooper 1989a, Cooper 1989b, Hallam and Cowan 1998, Hartley and Branthwaite 2000, Farrow et al 1999) have shown that homework in the primary years has a negligible or no impact on children's learning. One possible reason for this may be that the work is focused on 'over-learning' rather than on the development of mental operations.

Adolescence: The adolescent, according to Piaget, is able to develop logical or 'formal' ways of thinking that are not limited to purely concrete manipulation but the development of ideas, generalisations and theories. Piaget sees logic as the highest form of intellectual activity, and it is only during adolescence that this faculty fully develops. Research studies (Cooper 1989, Bonyun 1992, Sharp 2001) have shown that during this stage of development homework can have a positive impact on learning and progress, which may be as a result of the adolescent's capacity to engage with ideas more logically.

These Piagetian stages of development are at least well known amongst educators, if not always well understood[2]. Less well known is that Vygotsky also proposed steps in a child's development. Whereas Piaget focused on the development of logical thinking or operations, Vygotsky was interested in the development of concepts in children's minds. His steps are less clearly defined by age than Piaget's, although he, too, sees adolescence as the final stage.

'Incoherent coherence': Vygotsky borrows Blonski's expression to suggest that a child's early experience is one of fairly random associations and subjective impressions between objects, in which objects are clustered together in mental heaps that may not make much objective sense.

'Thinking in complexes': Vygotsky suggests that, in the pre-adolescent stage most closely aligned with Key Stage Two, a child makes significant progress when they start to link objects using bonds that really exist as well as their subjective impressions of how things are linked, and that during this lengthy stage the child constructs ever more complex complexes that link the observable world. Of this

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[2] In the staffroom of the school where I had my first teaching post someone was reading out an article they had found that highlighted the importance of practical apparatus in supporting children's learning; a senior colleague said this was not news, we had known this since Piaget. 'Concrete Operations,' she cried.

stage Vygotsky (1962, pg 66) says: *'It is well known that the child is capable of surprising transitions, of startling associations and generalisations, when his thought ventures beyond the boundaries of the small tangible world of his experience'*. My main challenge to the current approach to homework might be to ask whether it ever achieves anything close to these 'surprising transitions, startling associations' etc. I suggest that such possibilities are difficult for children to achieve when working alone, and are possible, though not guaranteed, when working with more expert others, such as parents, siblings or grandparents, on interesting tasks that broaden horizons beyond the notion of 'right and wrong' answers.

'Concept development': At adolescence the child develops the ability to link many ideas, observable facts and theories, and the use of language is central to the development of both understanding and building these concepts. Even at secondary school, students would perhaps benefit from homework that was collaborative in nature rather than a solitary activity.

2.2.3 Learning

For Piaget, intellectual development was comparable to organic growth, with activity always leading towards ever more stable states of equilibrium. He described this process as 'equilibration'. He firmly believed that children actively construct their own knowledge and understanding rather than receiving it from a teacher, and that this construction was a process of equilibration achieved through two other processes: 'assimilation' and 'accommodation'. As children grow, they constantly gather information about the physical and social world which they use to construct their understanding of how the world works, and Piaget thinks of these as constructs within the child's mind. Every new experience brings information that has to be processed. If the new experience relates closely to an existing construct then the information can be assimilated; an existing mental model is used to understand, make sense of and categorise the information. If the new experience challenges or does not fit into the existing constructs then the mental structures themselves need to be adjusted in order to accommodate the new ideas.

The basic distinction between assimilation and accommodation could be thought of like this: assimilation is the process of fitting the external world into internal

structures and accommodation is the process of adjusting the internal structures in order to fit the external world.

Piaget argued that the process of accommodation takes place when there is a disequilibrium or mismatch between the child's mental or internal understanding of the world and the evidence before them, and that the process of accommodation leads towards equilibrium; the process of equilibration. Wood (1988, pg 41) puts it very well: *'the child discovers some situation that challenges her assumptions. She then enters a state of disequilibrium. She is confused as her assumption is brought into question by the reality of events. This mental state is intolerable and motivates thought and action'.*

I find Piaget's theory attractive in three ways. Firstly, it has a simple elegance about the learning process; the notions of assimilation and accommodation are not complex in themselves, and yet they simplify and enable us to begin to gain an insight into the extraordinary process of learning. Secondly, I can relate it very well to my own learning, particularly in science; new information is easily managed if I have 'somewhere' in my head where I can put it, and information that does not easily fit causes a restructuring of my ideas[3]. Finally, I like Piaget's theory because it genuinely credits children with intelligence; their learning is a result of their own mental grappling with the evidence, and the mental construction is a constant process, regardless of education.

I argue that the current, dominant approach to homework does not support the learning process as outlined by Piaget. Homework tends to be about 'reinforcement' of learning, rather than challenge; new or novel evidence or experience is not the primary function of completing the worksheet, but rehearsing knowledge. A new approach to homework, based on discussion and activity, could reveal mismatches

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[3] During the time when I was training to be a teacher, a friend of mine visited Australia, and came home reporting that the Sun went the other way across the sky there. I boldly told her this was nonsense, utterly impossible; the Sun's journey across the sky was caused by the rotation of the Earth and the Earth can only rotate one way at once I said. But she was adamant, and she had seen it with her own eyes. I was perplexed; the Northern and Southern hemispheres could not rotate in opposite directions – if this were so, crossing the Equator would be highly dangerous. It took a bit of thinking through before equilibrium was restored and the truth became clear and is perhaps best described thus: viewed from above the North Pole the Earth rotates anti-clockwise, but from the South Pole it rotates clockwise.

in children's and parents' ideas and provide some cognitive challenge in order to provoke some disequilibrium through discussing and debating different ideas.

While Piaget considered children's learning to be related to their independent development of mental 'constructs', Vygotsky suggested that children developed 'concepts' and they did so through their interactions with adults and peers. The Vygotskian notion of concepts is not that far removed from Piaget's idea of constructs and the following quote, though obviously Vygotsky's, could have been applied to either man's theory:

> *What happens in the mind of the child to the scientific concepts he is taught at school? What is the relationship between the assimilation of information and the internal development of a scientific concept in the child's consciousness? ... One school of thought believes that scientific concepts have no inward history, i.e., do not undergo development but are absorbed ready-made through a process of understanding and assimilation. Most educational theories and methods are still based on this view. It is nevertheless a view that fails to stand up under scrutiny, either theoretically or in its practical applications.*

Vygotsky (1962, pg 82)

Vygotsky suggested that there are two kinds of concepts that a child might hold. 'Spontaneous' concepts are those that are the child's own ideas, the results of their own mental effort. 'Nonspontaneous' concepts are those that are decisively influenced by adults. As we shall see in the next section, Vygotsky argued that the interaction between children and adults is crucial in concept development, but that *'direct teaching of concepts is impossible and fruitless. A teacher who tries to do this usually accomplishes nothing but empty verbalism, a parrot-like repetition of words by the child, simulating a knowledge of the corresponding concepts but actually covering up a vacuum'* (Vygotsky, 1962, pg 83).

Vygotsky's thinking corresponds closely with my own experiences as both a survivor of the education system and as an educator. Many children, much of the time, are content to tell the teacher what they want to hear, whether or not they have any genuine grasp of the concept. Only occasionally do they reveal a glimpse inside their heads, so that the teacher can begin to see the gulf that lies between what the

teacher thinks they have taught and what the child has understood[4]. This raises one of the underlying problems with current conceptions of homework; it is based on the child's over-learning of the teacher's answers, rather than the development of concepts which might be achieved through genuine, thought-provoking discussion.

The theories of Piaget and Vygotsky have both been very significant in science education, and the men are considered to be the founding fathers of 'constructivism', the predominant theory of learning espoused by science teacher-educators. According to Selley (1999, pg 7): *'It is a theory which holds that every learner constructs his or her ideas, as opposed to receiving them, complete and correct, from a teacher or authority source. This construction is an internal, personal and often unconscious process. It consists largely of reinterpreting bits and piece of knowledge ... to build a satisfactory and coherent picture of the world'.*

The theory of constructivism is now well established amongst science educators such as Harlen and Qualter (2004), Naylor and Keogh (2000), Allen (2010), and Black and Harrison (2010, pg. 184) who suggest: *'new ideas cannot simply be taken on board by a learner exactly as they are presented. Learners will always try to relate new ideas to those with which they are already familiar'.* The idea that, prior to being 'taught', children already hold ideas related to scientific concepts has given rise to research into children's ideas which, if not scientifically correct, might be labelled as 'misconceptions' or 'alternative conceptions'. Allen (2010, p. 5) provides a summary of common scientific misconceptions that research suggests primary children are likely to hold, but cautions: *'Identification of a pupil's misconception is often the easy part for teachers, with correction being more complex and less attainable'.*

It should be noted, then, that constructivism is a theory of learning, not a theory of teaching. It provides some ways of conceptualising what goes on inside the mind of a learner, and educators need to consider the implications of these ideas when

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[4] When teaching 'The Earth and Beyond' to year five children I was pleased with their understanding of 'night and day', having modelled the process using a globe, until a boy came to me to ask: 'Mr Forster, what's it like on the Earth – I've never been there'. My teaching of night and day had no relevance to this child, as he thought I was talking about somewhere quite removed from his life, his experience, his world.

planning how to engage children with effective learning opportunities. In the next section I shall consider what Vygotsky and Piaget had to say about teaching.

2.2.4 Instruction, interaction and the 'zone of proximal development'

It is on this issue that the differences between the two theorists become most clear. Piaget presents the view that a child's ability to learn is almost entirely dependent on their stage of development, and he makes little or no attempt to consider the role of the teacher in enhancing the child's learning experience, other than to say that premature attempts to teach a child lead only to empty procedures and learned tricks, as the child is simply incapable of performing beyond the level appropriate to their stage of development. Piaget's is a theory of learning in which *'understanding is constructed by the child through his own, self-selected problem solving, not through any direct efforts of his teachers'* (Wood, 1988, pg 24). In relation to homework, children are rarely offered any opportunity to self-select, and this might be profitable in terms of the child's cognitive engagement with the issues.

Vygotsky, on the other hand, presents a theory that encompasses both learning and teaching. On first reading I found Vygotsky's thinking to be at odds with my own understanding of learning, because he places a great emphasis on 'instruction' in the learning process; he defines intelligence as *'the capacity to learn through instruction'* (Wood 1988, pg 9). The term 'instruction', for me, conjures up notions of children being told exactly what to do and how to do it; I do not view this as productive teaching, and Holt (1982) provides a nice example to support my view. He recounts the story of a teacher who showed her class a concertina fan made from a sheet of paper. When asked to make one, all the children were able to make something that approximated the teacher's fan. The teacher then read out the fan-making instructions for the children, clearly and slowly, and the children had another go at making the fans; not one child could now do it.

However, Vygotsky does not share such a limited definition of instruction, but rather applies it to all sorts of contexts, both formal and informal, in which child/adult interactions take place. Indeed, he criticised 'direct teaching' as largely ineffective and rather suggested that effective instruction was a collaborative process between the child and the adult or more expert peer. This is at odds with the current

predominant practice in the transaction of homework, in which children are expected to work independently, and interaction with adults is not encouraged, beyond the parent ensuring that the homework task is completed, in order for the teacher to see the 'child's own work'. I would support Vygotsky's view that learning takes place in both formal and informal settings in which adults and children collaborate in shared development; the aim of this research project is to explore whether homework could be re-cast in order to provide opportunities for such collaboration and learning.

The conceptual idea that Vygotsky is probably best known for, and a central plank of his theory, is the notion of the 'Zone of Proximal Development', hereafter referred to as the ZPD. He claims: *'We found that instruction usually precedes development. The child acquires certain habits and skills in a given area before he learns to apply them consciously and deliberately'* (Vygotsky 1962, pg 101). The ZPD is not a measure of what has developed, but the ability or potential to develop, defined by what the child cannot do alone but can do with support from a more expert other: *'What the child can do in cooperation today he can do alone tomorrow ....Instruction must be oriented towards the future, not the past'* (Vygotsky 1962, pg 101).

I think the ZPD is an excellent way of thinking about children's learning, and is particularly pertinent in the debate about homework. The ZPD is not just a way of defining a child's potential, but also of helping them to achieve that potential. Traditional models of homework are based around a child developing independence through working alone on their set tasks; the adult's role is merely to ensure that the child does what is 'required'. Research such as that by Cooper (1989) has revealed that homework in the primary years has a negligible or zero effect on children's learning, and viewed through the lens of Vygotsky's theory the reason is clear: most of the time, for most homework tasks, the adult stands outside the ZPD. This is not to say that the adult and child have no interaction about the homework, but, in many cases, this is a limited and fractious encounter focused around 'getting it done' (Solomon 2002, Lacina-Gifford and Gifford (2004)).

One argument put forward to support the use of homework is its value in reinforcing learning. Vygotsky (1962, pg 104) would not be convinced: *'In offering the child problems he was already able to handle without help, this method failed to utilize the zone of proximal development and to lead the child to what he could not yet do.'* The

findings of Hughes and Greenhough (2002a) and Simplicio (2005) show that this is often the case, that children are given homework tasks that simply repeat what they can already do.

In Vygotskian terms, the central question of this research project is: Can homework be redefined in such as way that it does utilise the ZPD, exploring and developing a child's potential rather than proving again what he can already do? In order for this to happen, children and adults will need to communicate, to share experiences and to collaborate in the learning process.

In the next section I will consider what the two theorists have to say about the interaction between language and learning.

2.2.5 Language and learning

On this issue the two theorists put forward very differing views. For Vygotsky, talk is central to the learning process, whereas Piaget proposes that language is a system of symbols that enable the learner to express their understanding or represent the features of the world.

In Piagetian terms, thought is internalised action; the child becomes master of the external world by carrying out internal, mental 'operations' related to it. The emphasis that Piaget places on mental 'action', coupled with his firm belief in the stages of development, reduces for him the impact that language can have in learning. However, he does not deny the value of talk as having the potential to promote and provoke thought, although, he claims, the child's ability to progress is dependent on his or her stage of development: *'language confines itself to profoundly transforming thought by helping it to attain its forms of equilibrium by means of a more advanced schematization'* (Piaget, 1964, pg 91).

In a rare consideration of teaching methods, Piaget (1969, pg 14) launches an attack on the 'fallback' position of many teachers, that of talking at children: *'whenever it is a question of speech or verbal instruction, we tend to start off with the implicit postulate that this educational transmission supplies the child with the instruments of assimilation as such simultaneously with the knowledge to be assimilated, forgetting*

that such instruments cannot be acquired except by means of internal activity, and that all assimilation is restructuration or a reinvention'.

On this point about teacher-dominated talk, Piaget would find Vygotsky in agreement. Where Vygotsky does present a different view is in the value of talk to enhance development and understanding, and he places a particular emphasis on the importance of shared and collaborative talk, in which learner and more expert other work together to solve problems or enhance understanding, considering the word as *'a means of concept formation'* (Vygotsky 1962, pg 59). If homework were to be redefined as a collaborative activity it could provide excellent opportunities for this, in a way that is not possible during the school day. Rather than homework being 'more of the same' it could be a highly distinctive and valuable learning experience.

Vygotsky does not view talk just as a means to learning new facts, but also in facilitating the development of 'higher mental processes', for example the ability to plan, evaluate, memorise and reason. Social interactions enable the child to internalise the intellectual skills needed in order for him to be an intelligently independent being, to be self-regulating and self-developing, by providing a model or blueprint of thought processes, such as how to debate different points of view or evaluate evidence. I argue that traditional approaches to homework are applied in the hope that they will develop independence in the child, but without providing the social interactions necessary to scaffold the intellectual skills.

The role of talk in children's scientific learning is central to the constructivist approach, as it enables children to make sense of their own thinking, and reveals to the teacher something about the children's ideas (Keogh and Naylor, 2000); Haigh (2010) emphasises the importance of dialogue rather than teacher-monologue in developing children's learning and capacity for learning, while Black and Harrison (2010) emphasise the importance of talk in developing, shaping and restructuring ideas.

2.2.6 Affectivity and Learning

Piaget (1962, pg 15) makes it clear that children's emotions are bound up together with their learning: *'attempts to dichotomise the life of the mind into emotions and thoughts ... nothing could be more false or superficial .... affectivity and intelligence are indissociable'.* The current education system largely ignores children's feelings and intrinsic motivations, and this seems particularly true regarding homework (Smith, 2000). The emphasis is placed on getting the homework 'done', trusting in its intrinsic value to enhance a child's intellect. However, if homework is seen as a boring chore then its impact could be negative, and inhibit the long-term intellectual development of the child. Smith (2000) found that children accord homework low importance and merely 'get it done' so that it does not cause trouble for them.

'Interest ... is a regulator of energy' (Piaget 1962, pg 34). This is an excellent way of expressing a widely held view of learning, that a child will engage more actively with learning that has an interest or relevance to their own life: *'Some degree of abstraction from real events is generally necessary, but it should always be possible for the children to link what is learned to real events'* (Harlen, 2008, pg. 13). Research by Weston (1999, pg 60) found that the first response of Year Six children, when asked why they did homework, was 'because of zero tolerance', a clear indication that the school's policy was probably successful in increasing submission rates of homework but possibly less successful in engaging the children in interesting and purposeful learning.

In my reading of Vygotsky I was surprised to find that he makes little explicit reference to the need for children's emotions to be considered as part of the theory of learning, perhaps because it is implicit within his proposition that language and social interaction are central aspects of the learning process. In this regard he acknowledges that: *'Thought itself is engendered by motivation, i.e. by our desires and needs, our interests and emotions'* (Vygotsky 1962, pg 150). Wood (1986, pg 99) agrees and is concerned that for some children school does not provide the right kind of pupil-focused interactions: *'most interactions at home are spontaneous and child-initiated and those in schools ... are usually contrived or adult controlled ... the interactions follow different ground rules. Children who are inquisitive and loquacious at home may show little initiative at school'.* My concern is that the

'*colonisation of the home*' (Solomon 2002) through homework limits the potential for useful, engaging and naturally child-centred or child-initiated interactions in the home, and Smith (2000) suggests that it can cause potential damage to relationships within the home.

2.2.7 Conclusions

Neither Piaget or Vygotsky had primary school homework in mind when formulating their theories, but both reveal general principles about teaching and learning that have a clear applicability to this learning context. A Piagetian approach to homework would focus on the appropriateness of the task to the stage of development, and consider whether the work did anything to assist the child in their construction of understanding through promoting or provoking a state of disequilibrium.

A Vygotskian approach would focus on collaborative work, adult-child interactions that enable the child to achieve more than they could alone by working within the zone of proximal development. The interactions would be focused not just on knowledge and understanding but also on the higher mental operations that will develop the child's capacity to learn.

The research of Wood (1998, pg 79) showed that parents working on a one to one basis with their children were able to develop the skills of '*contingent instruction*', in which they learnt to adjust their instructions and demonstrations on a task depending on the progress or responses of their child. This clearly draws on the Vygotskian model of the ZPD, but Wood found that it was not easy for parents to learn the approach to contingent teaching and that for some it was very difficult. This clearly raises questions about whether a discussion and activity based approach to homework would work for all families, and I suspect that the answer is a fairly straightforward 'no'. However, I would argue, on the basis of the theories of Vygotsky, and the research by Wood (ibid) and Hughes and Greenhough (2002a), that traditional approaches to homework do not support the learning of many children, and that they do nothing to engage the families in understanding their children's learning.

The research of Wood highlights the potential positive impacts of supporting and developing parents' skills in engaging with their children's learning, and schools would need to consider this as part of their approach to homework. Research by Wood and Wood (1983), citied in Wood (1986, pg 114), reveals that pupils in school are more likely to engage in questioning and making contributions to discussions if the teacher does not ask too many questions themselves: *'the more they question the less children say'*. Any homework that seeks to promote adult-child collaborative discussion and thinking should also encourage a parent not to take on the role of an unskilled teacher which can result in an interrogative question and answer session. Schools will need to work positively with parents as the cultural shift will require change from both parties. The potential rewards are great, as the learning theories of Piaget and Vygotsky indicate, and we should not assume that this will just benefit the children; parents may learn from their children and partnership between children, parents and schools could be strengthened.

My review of the literature in relation to learning theory has enabled me to develop a clear and detailed understanding of two classic theorists in the field of education, and to see where my views are aligned to theirs. For Piaget, I agree that knowledge is a personal construction, and that ideas are developed through assimilation and accommodation. The idea that education should provoke disequilibrium is a central aspect of my approach to teaching and learning. I understand Piaget's stages of development, but I do not share his acceptance of a child's limitations to learning based on the stage of development. On this count I align myself more closely to Vygotsky, in his belief in the empowering effect of social interaction, and working within the ZPD to develop the higher mental capacity of the child.

With regard to this research project, this section of the review of literature demonstrates that my beliefs about teaching and learning are well under-pinned by both theory and research and suggests that the research project is well positioned to make a valuable and important contribution to knowledge. In this section, I have already demonstrated the importance of formative assessment in constructivist learning theory, as shown through the principles of Vygotsky's ZPD and in the principles of contingent teaching (Wood 1986). In the final section of the review of literature, I will further explore the importance of formative assessment in constructivist teaching and learning.

2.3 Review of literature part three: formative assessment

The last decade or so has seen a great deal of research and the presentation of compelling evidence, led by Black and Wiliam (1998) and the Assessment Reform Group (1999), into the impact of assessment on learning.

One of the key findings of research into assessment has been the identification of problems associated with giving learners marks or grades as a form of feedback on their learning (Black and Wiliam 1998, Clarke 2001). While receiving a 'good' grade can boost self-esteem, a low grade is often demotivating, and a series of such grades can build a feeling in a student that their 'ability' is fixed, rather than focusing on the impact that their own efforts can have on their progress (Black et al 2002).

However, according to the Assessment Reform Group (1999: p. 2), 'assessment is one of the most powerful educational tools for promoting effective learning'; they refer here to 'formative assessment' that provides feedback for the learner to enable them to make good progress. The utilisation of formative assessment has been shown to have a significant effect on learning and attainment and, as importantly, on the enthusiasm and effectiveness of learners (ibid).

According to the Assessment Reform Group (1999, p. 4), the key factors of formative assessment are:

- *The provision of effective feedback to pupils*
- *The active involvement of pupils in their own learning*
- *Adjusting teaching to take account of the results of assessment*
- *A recognition of the profound influence assessment has on the motivation and self-esteem of pupils, both of which are crucial influences on learning*
- *The need for pupils to be able to assess themselves and understand how to improve.*

A key aspect, here, is the importance of the child's involvement in the assessment process which enables them also to become an active participant in their own learning, a view supported by Clarke (2005).

Black et al (2002) consider the importance of formative assessment in the teaching of science, and emphasise the importance of discussion in enabling children to

explore their own ideas and clarify their thinking, and enabling the teacher to understand the children's ideas. This is supported by Briggs et al (2008) who emphasise the importance of children's talk in science assessment and learning, and also suggest that children's attitudes to science can be explored and supported through active learning that values the children's ideas. Through this research project, I propose that pencil-free science homework provides children with good opportunities to get involved in their own learning, and potentially valuable opportunities for useful assessment within follow-up lessons.

The assessment of homework is only briefly mentioned in these seminal texts on assessment for learning, and the same principles in relation to feedback are recommended. Roberts (2009, p. 15) reports that *'the majority of comments on written homework were summative, with errors pointed out and a mark or grade given, rather than formative, where pupils are given advice on the steps they should take to improve'.*

In relation to current assessment practice in relation to homework, I contend that many teachers have a rather 'binary' view of assessment of homework: it has either been handed in or it has not. In the trial of pencil-free science homework outlined in later chapters there were no worksheets to hand in, so assessment could more easily be focused on the children's ideas and discussions rather than on whether it had been completed.

In primary science, a significant element of formative assessment is known as 'elicitation' (Ollerenshaw and Ritchie, 1997), a stage near the beginning of a possible constructivist learning sequence, in which children's ideas are 'drawn out'. This 'drawing out' process has two main advantages: firstly, it enables the teacher to gauge the children's ideas, identifying possible alternative misconceptions (Allen, 2010), and, secondly, it enables the children to begin to identify their own ideas and clarify their thinking. There are several well established approaches to carrying out elicitation activities, such as asking children to create a mind-map of their ideas, drawing diagrams, or answering questions (Harlen and Qualter, 2004). Naylor and Keogh (2000) have developed a collection of 'Concept Cartoons' that stimulate discussion around a range of ideas presented by cartoon children in a variety of real-life contexts. The homework tasks designed for use in this research project and

publication (Forster et al, 2010) are also designed to enable children to clarify their own thinking and explore the ideas of others in their household, and provide opportunities for the class teacher to elicit these ideas in follow-up discussions in class.

2.3.1 Conclusion to chapter two

In outlining the policy and research context in which schools operate in relation to homework, I have demonstrated that the current policy is, at least, open to challenge due to the potential flaws in the research methodology, and that other research suggests that the learning benefits of homework in the primary years are negligible or non-significant, and that any benefits of homework are potentially outweighed by the negative experiences and attitudes that often develop as a result.

I have provided an introduction to the constructivist theory of learning and demonstrated how its principles can be applied to the practice of homework in order to develop homework as a learning-centred rather than task-oriented activity. Further, I have outlined the principles that underpin effective formative assessment, and argued that formative assessment is a powerful aspect of the constructivist theory of learning, and that the principles of formative assessment are currently underutilised in relation to homework practice, in which homework currently often assessed in a rather binary fashion, focusing on completion or non-completion of homework.

In the following chapter, I will present an outline and justification of the research design utilised in the research project.

Chapter Three

Research design

The aim of this chapter is to demonstrate how the research design was developed in order to address the research objectives. The research objectives for the project are reviewed and a rationale is presented that provides an insight into the epistemological underpinnings of the project and the justification of research methods to achieve the research objectives. Consideration is given to the management of the research process, the stages of the research and the ethical implications of the research design. Data analysis methods are outlined and issues of validity, reliability and generalisability are discussed.

The research objectives are to:

1   Understand the beliefs and attitudes held by primary school teachers, parents and children about homework and explore how these parties engage with it.

2   Evaluate the impact and value of homework on children's learning and enthusiasm for learning, and on teacher-pupil, parent-pupil and parent-teacher relationships.

3   Understand the perceptions of teachers, pupils and parents of innovative, active and discussion-based homework in primary science.

4   Evaluate the impact and value of pencil-free science homework on children's learning and enthusiasm for learning, and on teacher-pupil, parent-pupil and parent-teacher relationships.

3.1 Epistemology and Methodology

In the next section I will outline the stages of the research process; in this section I will outline my intended research approaches and consider the potential rigour of the research design.

Epistemology can be thought of as a way of understanding what it is we know, and on what basis that 'knowing' is made. As I have already made clear, I take a constructivist approach to learning and it is consistent with this for me to take a

constructionist epistemological position, as defined by Crotty (1998, pg. 9): *'Truth, or meaning, comes into existence in and out of our engagement with the realities in our world. There is no meaning without a mind. Meaning is not discovered, but constructed'*. Postman and Weingartner (1969, pg. 93) have a clearly constructionist view of knowledge: *'It does mean that whatever is 'out there' can never be known except as it is filtered through a human nervous system. We can never get outside our own skins. 'Reality' is a perception, located somewhere behind the eyes'*. In this project, the review of literature had already identified the diversity of views and opinions on the issues, and the potential for mismatch between espoused beliefs and actions. The intention of the research was to explore the complex realities of homework and the ways in which it affects real people's lives in order to construct a rich understanding of their experiences.

In accordance with a constructionist epistemology, I planned to utilise a qualitative approaches to data collection and analysis. Qualitative researchers *'recognise that the relevant reality as far as human experience is concerned is that which takes place in subjective experience, in social context, and in historical time'* (Thorne, 2000, pg. 68). My intention, throughout, was to draw out the experiences and perceptions of all relevant parties, in order to understand the main ideas. Creswell (2007, pg. 17) suggests that, for researchers using qualitative approaches, *'reality is subjective and multiple'* and emphasises the importance that the *'researcher collaborates, spends time in the field with participants'*. My plan was to spend sufficient time with a range of participants with different roles and perspectives, in order to build a coherent and detailed picture as a result; data drawn from these encounters were to be analysed by identifying key themes, as explored further later in this chapter.

I planned to take a case study approach, as described by Punch (2009, pg. 119): *'The basic idea is that one case will be studied in detail, using whatever methods and data seem appropriate'*. The use of a case study approach enables the researcher to focus in some depth on the issues, and to define clear parameters for the research (Silverman, 2010). In this research project, I hoped to identify one mid-sized primary school in which I could explore the perceptions of children, parents and teachers in relation to homework, providing a suitable context from which generalisable conclusions might be drawn, as explored later in this chapter. In

reviewing the research objectives, focusing on one school would enable me to engage in interviews with the participants which I hoped would provide me with richer insights than might be achieved by, for example, using questionnaires in more school contexts. The issues to be explored were both complex and sensitive and, therefore, exploring one case carefully and in some depth would be appropriate to meeting the research objectives. The case study approach enabled me to utilise one model suggested by Bassey (1995, pg. 55):

> *Sometimes a research problem in educational research may be best addressed by a two-stage format of research questions of this kind:*
>
> *What is happening in the educational process now?*
>
> *How can we try to improve it?*

I planned to begin the process by understanding current practice in primary homework and then see how practice could be developed through the application of learning theory. I set out to achieve this through collaboration with a school, to provide a case study of the relationships between the actors and the issues involved and explore the complex inter-relationships between all the players and their contexts (Edwards and Talbot, 1994).

The main data collection method I planned to use was semi-structured interviews (Cohen et al, 2007), with teachers, children and their parents. Powney and Watts (1987, pg. 16) observe that interviews can seriously diminish the dynamic aspect of talk, especially if carried out in a formal manner, resembling '*a kind of remorseless, impersonal interrogation*', although Edwards and Talbot (1994, pg. 88) provide more hope: '*If you are a good and sympathetic listener with a sound memory you'll make a good interviewer*'. Fortunately, student evaluation suggests I am a good listener, but I needed to be ready to utilise the range of soft skills and be flexible in my approach, adapting my questions, comments, tone of voice and non-verbal communication to gain the most insightful responses from each participant.

In carrying out interviews with teachers I recognised I would need to be careful to avoid appearing to be the 'knowledge police', a term suggested by one of my supervisors. As I am a lecturer in education and course leader for the Primary PGCE I was aware that some teachers may try to tell me what they thought they

should be saying rather than their genuine beliefs, or may find it hard to adjust to the collaborative and reflective role I anticipated, as discovered by Nind et al (2004, pg. 267):

> 'Ours was a ... exploratory and reflexive agenda, but it was harder than we anticipated to operationalize this set against a surveillant regime that leads teachers to expect judgment. In Sonya's teaching career she had only known this context and her expectations were shaped by it. It felt to us that she wanted the study, like her Ofsted inspection, to affirm her as a good teacher; she did not seize the opportunity to reflect on practice with us'.

Other approaches that I considered for use included observation of the teachers working with their classes when setting or reviewing homework, a survey of parental opinions and the keeping of a research diary in which to record my own thoughts and reflections (Edwards and Talbot, 1994). In the account of the research from chapter four onwards, I will outline how decisions were taken in relation to these data collection methods.

I was prepared for the fact that the research plans that I made at the outset of the project could only be considered as drafts, as difficulties and new opportunities were likely to be encountered throughout the process. I was prepared to be flexible and opportunistic in order to exploit (ethically) data-rich seams, as Holliday (2002, pg. 7) suggests: 'Day-to-day research comprises short-cuts, hunches, serendipity and opportunism'.

3.2 Stages of the research

Stage One: First, it was necessary to select a school to work with, and establish a positive and effective working relationship from the outset (Matthieson and Richter 2007); I was aiming, ideally, to find a school of between one and two hundred children on roll, as this would constitute a mid-sized primary school for the county of Gloucestershire, with a mixed catchment area, to increase the potential generalisability of the study. In order to achieve this I took advantage of my contacts with headteachers I knew; while I recognise that this could be criticised as rather too cosy an arrangement, according to Silverman (2010, pg. 204), 'it is not uncommon for qualitative researchers to use their existing relationships and contacts for their research' and I believe that it yielded several potential benefits. First, it (almost)

guaranteed me a welcome on my first visit, even if the head subsequently chose not to join the project. Secondly, it enabled more natural discussion from the outset, about the research project and about the headteacher's views. Finally, it enabled me to choose a school where I knew an Ofsted inspection was not imminent and where the headteacher might be willing to 'take a risk' and try something different.

Stage Two: I intended to begin with a semi-structured interview (Cohen et al 2007) with the identified headteacher. This, I hoped, would serve two purposes: to elicit the head's personal views about homework, including any mismatch between their beliefs and their school policies, and secondly to enable me to discuss the project with them and provide them with an opportunity to join the project. The headteacher would be a very significant player throughout; not only would they act as an ethical gatekeeper in their own school but also advisor on the overall direction and shape of the project. This kind of balance is important in order to avoid the *'dangerous suggestion implied in some action research and intervention research that the 'researcher knows best'* (Hitchcock and Hughes, 1989, pg. 56).

Stage Three: With the guidance of the Headteacher, I hoped to identify the science co-ordinator or any other interested class teacher in each school and interview them to discover their current practice regarding homework, their beliefs about learning, and identify any potential mismatch between policy and practice. With both the teachers and headteacher I was seeking to understand if there was any mismatch between their espoused beliefs about children's learning and their policy in reality; as Littledyke (1996, pg. 129) suggests: *'many teachers are more child centred in their outlook than they are in practice'*. Once again I would need to outline the project and enable the teachers to ask any questions to enable them to decide whether to join the project or not. If they chose to join the project we would make some plans for further meetings.

Stage Four: At this stage I hoped I would be able to meet between five and eight children at the school to explore their views on homework, their feelings towards it and their thoughts on its value in their learning. I hoped to explore the impact of homework on the dynamic relationships between children and their parent or carers (Livingstone 2006) and the views of parents about the value of homework. In order to achieve all this, I planned to interview children and parents together; not only

would this provide me with an insight into this dynamic relationship, and yield potentially more honest responses, but would also ensure an ethical safeguarding of the children (Edwards and Talbot 1994). Conducting interviews with between five and eight child-parent pairs would, I hoped, provide sufficient insights to provide validity in addressing the research objectives; I recognised that the voluntary nature of the sample could potentially affect the results, as perhaps the most conscientious or interested parents would be most willing to take part.

Stage Five: At this stage, I hoped to look ahead with the teachers at their curriculum plans and work with them to develop some new pencil-free, science homework activities, based on learning theory (as described earlier), for an identified half-term topic. At this stage, I planned to discuss with the headteacher and teachers about how we should communicate with the parents about changes they would notice in the homework; I would offer to hold a meeting for interested parents and write to all parents outlining the nature of the research and its implications for their child's homework during the half-term topic.

Stage Six: Working closely with the school we would trial the learning focused homework for the half term. I planned to stay in touch with the school throughout this period of the project to discuss how it was going and make further adjustments to the tasks, and make arrangements for interviews.

Stage Seven: At this stage I planned to re-interview the original parents and children, teachers and headteacher to discuss how they had found the trialled homework.

At every stage, I was ready to take an opportunistic approach (Holliday 2002) to the research process, and take opportunities that would add value or depth to the findings. For example, as I would be working with just one school, I hoped to take advantage of conferences we hold at the University for our school partners to discuss my research, to share initial findings and to seek responses to the issues raised.

3.3 Data analysis

It was my intention to create a detailed and valuable insight into the issues of homework in the primary years through the use of 'thick description' (Geertz, 1993)

to '*show the different and complex facets of particular phenomenon*' (Holliday 2002, pg. 78). I planned to use a broadly inductive approach to data analysis, through coding data and identifying themes, in the tradition of Corbin and Strauss (1998, pg. 102): '*Broadly speaking, during open coding, data are broken down into discrete parts, closely examined, and compared for similarities and differences*'. I anticipated that most of my data would be in the form of interview transcripts; I planned to read through each transcript, noting and coding comments and statements by the participants, guided by the research objectives and also noting anomalous or interesting or revealing comments. Coding of the data in this way would enable me to identify the key issues and themes, such as the impact of homework on relationships within the home and school, children's homework preferences, or how the families approached homework.

I planned to use NVivo qualitative analysis software to help manage the process of organising, coding and interpreting data (Richards 2009), while noting Thorne's (2000 pg. 68) warning:

> '*Although there are many qualitative data analysis computer programs available on the market today, these are essentially aids to sorting and organising sets of qualitative data, and none are capable of the intellectual and conceptualising processes required to transform data into meaningful findings*'.

With the help of the analysis software and the creation of thick description I was able to identify themes in the data which enabled me to develop an argument as the research developed (Holliday 2002). I did not plan to carry out all the data gathering, then all the analysis, but rather planned a dynamic and reflexive cycle.

In developing arguments, theories and ideas from the data it is clear that this dynamic approach is appropriate to managing qualitative data: '*It is evident that all researchers use both inductive and deductive approaches in constructing explanations or developing understanding. In all research we move from ideas to data and from data to ideas* (Read and Marsh, 2002, pg. 234).

3.4 Ensuring validity

According to Holliday (2002), the quality of qualitative research lies in the skill of the researcher to write openly and explicitly about every stage of the process, honestly revealing how each decision was arrived at, each element conducted and how data is analysed. This was particularly important in my enquiry as I have a strong personal position on the issues under enquiry; as the researcher I have attempted, throughout, to develop a 'cautious detachment' from the enquiry. In analysing data, it was important to recognise and acknowledge my own views, as suggested by Corbin and Strauss (1998, pg. 97): *'we recognise that it is not possible to be completely free of bias'*. According to Creswell (2007, pg. 17) the qualitative researcher *'openly discusses values that shape the narrative'*.

Through the use of a variety of participants and collection methods, I planned to triangulate my data (Cohen et al, 2007) to provide a range of insights into the same problem, and, so, increase the validity of my findings. *'Validity is the term used to claim that research results have precisely addressed research questions'* (Somekh and Lewin, 2005, pg. 349). The research design was appropriate for achieving this goal, and appropriate to the research objectives identified.

Reliability is generally defined as the extent to which the results of a study could be expected to be reproduced if the research were to be carried out again in a similar context; for a study to claim to be reliable its findings must have a wide applicability. It is usual, therefore, for reliability to be claimed by large scale projects where large numbers of participants have been involved. However, Sharp (1998) suggests that generalization can be claimed from case study, small scale, qualitative studies, based on a theoretical generalisation rather than empirical, and Bassey (1995, pg. 111) suggests that small studies such as this one should be expected to have a wider impact: *'a singularity is a set of anecdotes about particular events occurring within a stated boundary, which is subjected to systematic and critical search for some truth. This truth, while pertaining to the inside of the boundary, may stimulate thinking about similar situations elsewhere.'* It is my intention that the enquiry should provide a basis for discussion and development in homework policy and practice in many primary schools.

3.5 Ethical considerations

The enquiry was conducted in line with the ethical guidelines published by BERA (2004) and the University of Gloucestershire ethical guidelines; the University of Gloucestershire Research Ethics Sub-Committee gave approval for the research in February 2009.

The major ethical issue to be considered was the welfare of the children involved in the enquiry, both in each class as a whole and for any children involved as interviewees. As an experienced primary school teacher with Criminal Records Bureau clearance I have a commitment to safeguarding children in every way, and was sure that no harm would come to any child as a result of their involvement in the project.

In this project, I proposed that the teachers involved should change their approach to the administration of homework with their class; I had to consider if this could present any potential harm to the children's learning or well-being. In this regard I am confident that the approach posed no potential harm to the children as it was based on sound pedagogical principles, as demonstrated in chapter two, and the headteacher who oversaw my research, together with the class teachers, acted as gatekeeper and collaborator in changes made to homework.

In order to seek the views of children on the project I used semi-structured interviews, interviewing a child and their parent at the same time. This ensured that no child was interviewed alone, and the issues around homework could be explored sensitively. All parties were well informed of the project and all interview participants, including the children, signed consent forms stating they agreed to be interviewed and for the interviews to be recorded on a digital voice recorder; the participants were assured that the electronic files would be stored securely until successful completion of the thesis, at which stage the files would be deleted. All participants were assured of anonymity in the writing of the thesis and any related publications.

An issue that I was aware could become potentially problematic is that of confidentiality. Edwards and Talbot (1994) suggest researchers need to ask whether all information can be truly confidential, and Cohen et al (2007, pg 59) suggest a

researcher should 'decide what you mean by confidentiality'. While all material was treated with confidence outside the setting, there was the potential for tensions between information provided by parents or children and whether this should be discuss with the school. I discussed this issue with all parties and agreed a 'rule of thumb' that all information would be confidential outside the school, and shared anonymously, where necessary, within the school.

A major and over-arching ethical concern was that of ensuring that my research was always conducted in a way that was both fair and helpful to the host school. In this regard, I planned to work closely with the Headteacher to ensure he/she was happy at all times with the research and the research approaches taken. Given the focus of the research, I was particularly concerned that I should conduct the enquiry in such a way that did not invite parents and children to criticise the school or the school's approach to homework; I will discuss this in more detail in chapters four to nine.

3.6 Dissemination

I intended to disseminate my findings as the enquiry progressed through sharing the results with the headteacher of the school. I also shared with my colleagues within the university department of education and the wider academic community through research seminars, and attendance at conferences. I planned to send a summary of my findings to the Minister for Education at what was the Department for Children, Schools and Families, and which recently became the Department for Education, which will be discussed further in chapter ten.

3.7 Conclusion to chapter three

The research enquiry was designed to add to the existing body of knowledge about children's learning related to primary homework. The enquiry design was fit for purpose, approved by the Faculty Research Degrees Committee, and the University Research Ethics Sub-Committee.

The research design was developed in order to meet the research objectives, based on a constructionist epistemology, a qualitative approach to data collection and analysis and a firm commitment to an ethical and sensitive exploration of the issues. In the next chapter, I will begin to show how the plan became reality and the

research began, through describing the early stages of the research, and presenting the evidence, analysing the data and drawing tentative conclusions.

Chapter four

The research, findings and discussion: interviews with teachers

'He was horrific with homework'

'The thing is you want the children to enjoy what they're doing. If it is a chore then they're not going to learn because they're not going to enjoy it.'

4.1 Introduction to the chapter

In this chapter I will present an honest account of the first stages of the research process as it transpired; for the most part, I will tell the story in a chronological way, as this will enable me to tell the story of the research, and present the evidence and analysis in a coherent manner.

4.2 Finding a school to work with

My first challenge, having decided on the draft research design, was to find a partnership school to work with. Through my professional knowledge of schools in Gloucestershire, both from my work as a tutor in initial teacher training at the University, and from contacts I had made in my previous role as deputy and acting headteacher, I was able to identify, in my mind, three schools which I intended to try, in turn, to see if they would be willing to work with me on the project. My choice of possible school partners was based on my knowledge of the school size, catchment area and, just as importantly, the headteacher; some headteachers are more open to new ideas than others.

The first school I contacted is a Church of England primary in a large village in Gloucestershire; it has a mixed catchment area, as the housing in the village is about half council stock, and with just over one hundred children on roll, in four classes, it is a fairly typical mid-sized school for the county. The headteacher and I had met on a few previous occasions when we were both undertaking our National Professional Qualification for Headship, and I considered him to be a very sound professional, committed to school development and willing to discuss new approaches to learning,

yet critical and reflective. I emailed the headteacher, Mr R, in October 2008 and briefly outlined the project, and asked if he would be interested enough to meet me to discuss it further. He replied that he was, and we arranged a meeting to take place at the school on Tuesday 18th November 2008.

4.3 Initial meeting with the headteacher

At this first meeting, I outlined for Mr R how I considered the project would go and how this might impact on the school; we discussed the potential commitment required from teachers, the frustrations and pitfalls of a research project like this one, and the potential benefits to the school in reviewing policy and practice in a research-informed way. He had already thought that this project might well contribute to part of his school's Self-Evaluation Form, an annual process that all schools undertake to demonstrate their knowledge of their strengths and areas for development.

In discussing the project with Mr R I was keen both to discuss the practicalities of carrying out the project in the school and to begin to explore his own views on the subject. I was keen to understand what he saw as the strengths and limitations of homework, both generally and in his school. In the following sections, I will set out the main themes that emerged from this discussion.

4.4 Themes from the initial interview with Mr R, headteacher

A number of key ideas and themes were notable in the discussion with Mr R: mixed feelings, children's varying levels of engagement with homework, homework for the sake of it, parents' varying perceptions about homework, impact on learning, and a success story.

Mixed feelings: in reviewing the transcript of this discussion, it became clear that Mr R had mixed feelings about homework, both through his professional experience and his experience as a parent of primary aged children. At different times in the interview, he expressed his *'concerns over the value of homework'* and, later, he suggested he had *'quite traditional views on homework'*. This ambivalence and uncertainty about the value and place of homework will become a recurring theme throughout this research, expressed repeatedly by parents and teachers, and, in

their own ways, by the children; this ambivalence also reflects that already seen through the literature. Mr R perhaps best summed it up when he said: '*I just think homework is a minefield*'.

> *Erm, so I've had some positive experiences of homework, but I've also had quite negative experiences, and I do find that, you know, my two, S will sit down and he'll rattle it off, and it will be done; J is a bit more of a perfectionist, and if something, erm, appeals to him, and interests him, he's quite happy to spend a bit of time and do a good job, and other times he'll just get it done, it will be rubbish, and it will take him hours, and it will be 'You're not moving off that seat until It's done, J,' you know, 'You're not having the telly on, you're not having the Playstation, you're not going on the computer until it's done, and, you know, then it becomes hard work. I'm not a big fan of homework at all ...*

This honest account of life in Mr R's household further highlights the mixed feelings and ambiguities in relation to homework, as he reflected on his personal experiences as a parent and the ways in which his own children have engaged with homework.

One size does not fit all: Mr R's main consideration of homework was that what suits one child will not suit all: *I think different children approach it in different ways, and, as a class teacher, when I set task for homework, you could see that some children had just rattled it off. It's done. 'I'm not going to get into trouble. It's not very good, but it's done. I'll get my tick and it's sorted'. Other children would really go to town on it, depending on the task, erm, and, you know, seem to quite enjoy doing it.*

This was the first time in the field research in which I encountered the notion of 'getting it done' and this will be seen to become an important theme throughout this work. In this interview, the headteacher provides a good insight into children's motivation to do homework, which is largely unrelated to whether they learning anything from it, but is more to do with staying out of trouble. *'Yes, 'Have you got it done,' rather than 'What have you learnt from it?'. '*

Parents appear to be complicit in this process: *'then you get the situation where the homework is basically done by the parents ...'*, which begins to provide an insight into the perceptions that parents have about the purpose of homework. This accords well with the findings of Cooper et al (2000) cited in Patall (2008) who found that two thirds of parents admitted to inappropriate levels of involvement in their children's

homework, *'including simply giving correct answers or completing assignments themselves'*.

Parents' varying perceptions about homework: Mr R clearly felt some pressures from parents with regard to ensuring that regular homework was being sent home: *'if the kids turn round and say 'I haven't got any,' then they'll be like 'Oh, what's going on with that school?' you know'*. Although he did not report the fact that he had had any actual conversations like this with parents during his time as headteacher, he clearly held the perception that this might be something that was important to parents; Hughes and Greenhough (2002a) found that there was often a perception that homework was interpreted by some as a sign of good school.

In another indication of the confusion around the issue, Mr R also suggested that some parents might value homework as an opportunity for a bit of peace and quiet, while others were almost too keen to get involved in homework tasks:

> *I think that managing the parents' views, their attitudes, their responses to homework I think is quite important as well because parents sort of come up through the system and have been used to homework being set in certain ways. Erm, managing that sort of change I think is quite important, really, because parents have a certain expectation, and, as I say, I think certain parents' expectations is that they are able to shut away their kids and get on with... leave them to get on with their homework, whereas I think you've got to sort of manage that process of expectation and get parents to understand that, erm, you know, there is a need for them to get properly involved in what their children are doing, which I think, you know, as in all schools, probably, some parents are very happy to engage in that process, er, almost to an obsessive level, and other parents are utterly detached from the process for different reasons. Some it's possibly because their, their own numeracy and literacy skills are pretty poor, and others because they're too busy, you know*

This point about managing parents' expectations seemed particularly pertinent to the introduction of pencil-free homework, as it would clearly be something rather different from what they had been used to.

Homework for the sake of it: One of the outcomes of the government's policy on the amount of homework children should receive has been that teachers have been under pressure to set regular homework, regardless of whether they felt it was warranted, timely or beneficial to the children's learning. In this context, the phrase

'homework for homework's sake' has been used in some of the research literature on the topic (Roberts 2009). It was noteworthy, then, when Mr R said something similar when considering whether the project would be interesting to get involved with: '*I think any homework tasks that move away from, erm, getting children to write things down that they already know, getting children away from doing stuff that's just dull, homework for the sake of it I think is, you know, has got to be pursued, really*'.

Impact on learning: Mr R identified what I later came to think of as the 'three Rs' of homework (reading, spellings and multiplication tables or number bonds) as being beneficial to support children's learning; opportunities for regular rehearsal of these fundamental skills was seen by all the teachers I interviewed as important to enable children to make good progress.

> *I would prefer to see homework sort of based around, you know, some reading, some spellings, some number bonds and multiplication facts, really, and then as you work your way up through the school more sort of research, topicy, presentation type homework I think works better when they get a bit older.*

(An interesting post-doctoral research project would be to explore the ways in which spelling is addressed through homework, as this tends to be merely a case of writing words out several times, and does not, I suspect, necessarily improve a child's ability to spell.)

A success story: Mr R told me about one parent who had benefited herself from her child's homework:

> *Another little success story that we've had is that a little boy in reception, who's in year one now, who is heading for a statement, really, his mum is illiterate, and, err, struggled all the way through school, but when the letters and sounds were starting to come home she realised that she was struggling already to help him with his homework, so Mrs X, the class teacher, was able to source some courses and support for her, which she has been going along to, and, you know, her literacy skills have really come on to the point now where she's willing to read and sign things that come home. She'll, she'll read the news... try and read the newsletters to J, and, you know, the homework thing has kind of been a big wake up call for her, and she's actually said 'Yes, I must do something about this. I don't want J to go the same way and have the same experiences as I've had, so I will actually make the effort to face up to my*

demons and improve my literacy skills.' I mean, that has been a big plus for the school, really, that that's come out of the homework.

This is an interesting insight into one of the potential benefits of homework as an important aspect of home-school partnership; in order to best support the child with their learning, the school was able to support the parent with their own. It is worth noting that the homework in question was one of the three basic types identified, above, by Mr R as important in reinforcing children's learning.

4.5 Next steps

At the end of this discussion, the headteacher agreed to raise the project at the next staff meeting, to explore whether the teaching staff would be keen to explore the issues further through hosting the project. I was delighted to receive an email from the Mr R, a few days later, telling me that the teachers were keen to get involved in undertaking the project; it is worth noting here that the research project was undertaken to completion at this school.

I met with the headteacher again in February 2009, in order to be introduced to the science co-ordinator and to discuss the practical and ethical aspects of the project, such as which classes would be involved, how many homework tasks we would set for the children and how these would be followed up.

There were several ethical issues to be considered and carefully judged here; Piper and Simons (2005) suggest that researchers operate in uncertain and complex environments and *'finely tuned professional judgement'* is required to inform ethical decision making. I was particularly careful to ensure that the headteacher and science co-ordinator were happy with the year groups we would work with, as I did not want them to feel that I had imposed too much on the school. We agreed that the children in class C, years three and four, would all be included in the project; for class D, years five and six, we agreed that the year five children would be involved and that homework tasks would be optional for the year six children, who already had a heavy homework schedule which the school did not want to disrupt in preparation for the Standard Attainment Tests in May. Another similarly subtle ethical issue we explored at this point was the impact the homework might have on the overall homework load on all children in classes C and D; we agreed that the

overall load should remain about the same as usual, so some other homeworks tasks would be suspended for the time of the project, so that the children would not be overloaded, but would not have significantly altered amounts of homework than they were used to.

Similarly, I was keen to ensure that the school should not feel I was trying to impose the project on them for too long, and suggested that the main part of the project, the trial of pencil-free homework, should be carried out for just half of one 'old term' or one 'new term' (six weeks), as this would be long enough to enable the children and parents to engage with the project, but would not feel too long if the pencil-free homework was not well received, as I explained to the headteacher: *'It's only half a term, really, in terms of change of practice, erm, and if it's rubbish you can blame it on me, and if it goes well, okay, it might be a stimulus for kind of further change'.*

In this meeting we also discussed the issue of informed consent, which was not straight forward in this case. Homework is a 'normal' part of school life, so we agreed that parents and children would not need to give their informed consent in order for the pencil-free homework to be set; in effect, it was the headteacher who signed a form for me giving his informed consent for the project to take place. However, we did think it was important to give the parents an opportunity to find out about the project before it started, and so we agreed that the headteacher would invite all parents and children from classes C and D to attend a meeting after school one day, at which I would give a brief and informal presentation about the project; this would also give me the opportunity to ask for volunteers to be interviewed by me about homework in general and again about the pencil-free homework. Any volunteers for interviewing would need to give their informed consent.

Following this meeting with the headteacher and the science co-ordinator, Mrs J and I discussed the topics for which we would prepare some pencil-free homework tasks. Using the activities prepared for publication (Forster et al, 2010) as the basis, we identified five appropriate activities for each class (see appendices 1 and 2), and I undertook to prepare these for use by Mrs J for the half-term of the project. For class C, Mrs J chose activities all related to one topic, plants and growth, and for class D she chose homework activities related to variety of topics, in order to revisit topics already addressed through the school's science curriculum.

As agreed in the previous discussion with Mr R, parents of children in the two classes were invited to attend a brief presentation about the project (see appendix 6 for short letter to parents in relation to the research project). I briefly outlined the project and some of the reasons why I was keen to try pencil-free homework; when I mentioned some of the tensions associated with homework, several parents gave me knowing looks and a giggle ran round the room, which was particularly noted by one of the class teachers, Miss L; in an interview shortly after this meeting, she commented: *'one of the ladies who were sat over there, she said the two boys... the smaller one actually was my year six last year and he was horrific with homework, so she looked over and winked. Yes, we had a real battle with him, so she's fully aware of it'*.

Twelve parents and their children attended the meeting and ten parents and their children originally signed up to be interviewed.

Following this information meeting for parents and children, the Headteacher and I wrote to all parents of children in classes C and D to inform them of the project and to encourage them to engage with their children on the pencil-free homework.

4.6 Interviews with teachers of class C (years three and four) and class D (years five and six)

In March 2009, I interviewed, separately, the two classteachers, Mrs C, teacher of class C, years three and four, and Miss D, teacher of class D, years five and six (the full transcript for the interview with Miss D is available in Appendix Nine). Both teachers struck me, as I noted in my research journal, as *'thoroughly professional and candid in their responses'*, and I was grateful for the way in which they seemed to be open to the project and frank in their responses.

The key themes that emerged from discussion with the two class teachers were: the purpose and value of homework, assessment and feedback, the impact of homework on relationships, and what they thought of the project.

The purpose and value of homework: I began by asking each teacher to outline the homework they set, which in both cases seemed fairly standard, and then I

asked them why it is that schools set homework; their responses reveal a certain ambiguity and ambivalence:

> Miss D: *I think a lot of schools feel like they should do homework. I know it's something that I've never been told whether I have to do it or don't have to do it. It's just something that historically is done, I think, in all honesty.*

The idea that schools set homework because it is expected, or feel it is the sign of a good school, is a recurring theme throughout the literature on homework (Hughes and Greenhough, 2002a), and will re-emerge later in this thesis when considering parents' perceptions of homework.

> Researcher: *Yes. So why... So if that's the generic case, why do you set homework?*
>
> Miss D: *Because in theory I think it's a good idea to consolidate the learning that you've done during the week, er, but obviously there's hitches with that. If they haven't got what you're doing, to send them a piece of paper home with sums and no help is pointless. Erm, but... I think it's good in theory, if it works... yes. It's a tricky one. I don't know.*

What was most interesting about this exchange was the fact that the teacher used the phrase '*in theory*' twice in quick succession, revealing a certain tension between what she hoped homework might be able to achieve and her concerns about its actual value. In exploring this issue further, she referred to the fact that there are many aspects of how the homework is done at home which can never be known:

> Miss D: *You don't know who is controlling it, how long it's taking them, where they're sitting and doing it, and who they are doing it with. Definitely. One little boy I've got, he is a lower ability child and yet his homework is coming in every week and it's nearly ninety percent correct. Now, I know if he'd have done that on his own it would have been thirty percent.*

Mrs C suggested that an over-crowded and pressurised curriculum had led to homework becoming more common in recent years, and expressed concerns that the pressures are often passed on to children.

> Mrs C: *I think because pressure is on curriculum, for example, reading is so important but we just don't have the time in the school day to sit and listen to every child read. I know they did when I was at school but then I know they*

weren't teaching anywhere near the amount of time that we teach ... The maths, I don't know why we do maths homework, to be honest.

School these days is very pressured. There's an awful lot they are expected to be able to do. When they go home, I think they need to chill out and be children. I think if they spent more time on social activities, you know, all the things that have been pushed out of the curriculum, it would be time better spent, to be honest. That's my honest opinion. Children just aren't children these days. They're like mini robots or they are expected to be. They have to reach this target, that target, and it's... I've seen my own children, especially as they have gone up to secondary school, the pressure on them... my daughter, you know, all sorts of problems. She finds the pressure very hard to handle. Is it necessary? At secondary school, yes, you can see because of their exams, but at this age I just don't see the need for it. They're squashing so much down into the primary curriculum, and, yes, to reach their targets you probably do need to be setting this, but do they need those targets set at such a young age? I don't think so. I think it's about developing the whole person in primary school, not making literacy geniuses.

As with Miss D, the teacher seems to be uncertain about the benefits of homework, and has very clear ideas about the potential difficulties and drawbacks presented by homework. Again, the issues raised here will become a theme later in the thesis, as parents and children comment on the challenges of being under too much pressure at too young an age.

However, as with Miss D, there seems to be a certain degree of uncertainty, as some homework is seen to be very valuable and important; for example, since the teachers cannot find enough time to hear all the children read regularly, it is seen as important that the parents support their children's learning by hearing them read regularly at home.

Assessment and feedback: According to the Assessment Reform Group (1999), *'assessment which is explicitly designed to promote learning is the single most powerful tool we have for both raising standards and for empowering lifelong learners'*. Over the last decade, teachers have received training, and schools have updated their assessment policies to reflect the principles of assessment for learning. In this context, the following exchange between Miss D and me seems noteworthy:

Researcher: *What about the assessment of homework?*

Miss D: *Um, it's marked every week by me. All homework is marked by me.*

Researcher: *Is it really? That's extraordinary.*

Miss D: *It's all marked by me.*

Researcher: *I mean when I taught in London, we had so much homework that we gave that I used to pile some of it up and eventually throw it away.*

Miss D: *Did you? I might do two lots and sit down in one big go and do it. But it's all marked by me. The monitoring of it, the handing in of it, the recording and filing of it, all homework filed is done by the TA.*

Researcher: *Okay.*

Miss D: *But we have the system that I mark it. She checks it, I mark it. It gets monitored that way.*

Researcher: *Yes. And when it has been marked, where does it go?*

Miss D: *It goes into a file and the children don't see it, in all honestly.*

Researcher: *Okay.*

Miss D: *So they're not getting any... Unless it's a case where they really haven't got it, and it's obvious, then I feed it back to them.*

Researcher: *Yes.*

Miss D: *If there's a few errors then they don't get to see that homework again.*

Researcher: *And then at the end of the year or something...*

Miss D: *It gets piled up, and taken out of the files, and recycled.*

Researcher: *Okay. So why are you marking it?*

Miss D: *For my benefit, I think, as well, just so... because I feel I should. It's a piece of work they've done, and because I want to see if it has been useful for them.*

Researcher: *Yes.*

Miss D: *But probably more because I feel I should.*

Researcher: *Yes.*

Miss D: *Because it's a piece of work.*

The response from Mrs C was remarkably similar:

Researcher: *What do you do with this homework when it comes in? What happens to it then?*

Mrs C: *I mark it and then it gets put into a folder.*

Researcher: *I'm impressed with that already because when I used to set homework I used to end up with a great big pile of it, which I used to throw away in the end. So it goes in a folder. Do the children look at it?*

Mrs C: *No, but then they wouldn't look back in their maths books either.*

Researcher: *That you spend the time marking …*

Mrs C: *I mean they look at it daily and if they're got house points they're excited and put them up, but, no, it's not used again, but then like a lot of the work isn't. It's more OFSTED driven. 'We like written evidence of what you've done.'*

Both class teachers found that, although they went to the trouble of marking the homework, the children did not benefit directly from the feedback that they provided.

An interesting idea which came from these discussions is the notion, which became more apparent as the project went on and as I reviewed the evidence, that much of what is done in relation to homework is driven by what 'should' happen: good schools 'should' set homework, children 'should' do it, parents 'should' ensure their children do it, and, here, teachers feel that they 'should' mark the work, even if there is no particularly sensible rationale for doing so.

The impact of homework on relationships: Miss D suggested that homework could provide a link *'with the children to the parents'* but went on to say that she felt she had good relationship with parents anyway, as it was a small school with a good

community feel. However, she readily identified a downside to homework when it comes to relationships:

> *I always feel I'm nagging about it, the handing in of it, especially year six. At the moment, they have got so much work on them that it's the same culprits every week forgetting it, so I do feel I'm nagging, and I do sometimes feel guilty about that because, like you say, yes, I'll mark it, and I'll know that child will probably get ninety percent of them correct and it will go in the bin at the end of the year, so I do feel mean about it in that way. Erm, I think it can be a negative thing at home, definitely. Erm, again, one child I'm thinking of never does it, is always pulled up on it by us, we then moan to the parents about it at parents' evening, and she gets a hard time for it. So I think it can cause friction between the parent and the child, and the teacher and the child.*

Mrs C raised similar issues:

> *Mrs C: I also think it does cause problems between the children and their parents if you've got children that persistently don't want... they just want to go out and play, and the parents are having to ground them and make them do their homework. I just think it spoils the relationship at home. I know with my daughter, particularly with the coursework, it has been a nightmare. I'm having to nag her all the time ...and we've got a few parents here that I can see have real battles with their children.*

> *Researcher: Yes.*

> *Mrs C: And I don't think it's worth it, to be honest.*

> *Researcher: Yes. And what about relationships between teachers and children, I mean if you have children that don't do their homework?*

> *Mrs C: Again, yes, it can cause friction because we're quite hot on... We tick everyone off on a Monday if it is brought in, and we reward them so there's an incentive to bring them in, but if they don't we make them stay in at playtime, which means they're resentful because they miss their playtime, we're not happy because we miss our playtime, but we have to be seen to be fair and consistent across the whole class. No, I don't think it... but then you do have those children that... on the other hand, there's some I know that desperately need to catch up on their work because they are behind, and so in some respects that has got to come before how they feel about you. You still try and do it in a nice way but there are some that I know... One girl in this class hasn't consistently done her reading homework, and she has now slipped, and slipped, and slipped, and unless we do something then, you know... her mum said at parent's evening 'I just can't make her do it'.*

And so we try and take that pressure off home. I mean I think in some ways she'd rather that we did it because she respects our authority and she will do it for us without the arguments, so I'd rather do that if I know parents are having a hard time. There's not many that resent us for it but there's a couple. Most of them don't.

Researcher: *What about parents – the relationship between parents and teachers?*

Mrs C: *Again, those parents that are supportive are very happy to do the homework and are very conscientious about bringing it in.*

I wonder if Mrs C really meant that the parents do the homework, or if this was a slightly Freudian insight, or merely a way of quickly answering the question. The bigger point here is that it is clear from the comments of both teachers that homework was contributing to situations where the most fundamental of principles relating to primary education was being undermined. It would be easy, but unfair, to hold 'homework' responsible for these breakdowns in human trust and communication, but it would be reasonable to suggest that the homework was creating regular opportunities for nagging, tension, and frustration to emerge between all of the main parties.

Given that the teachers are the people who set homework for children, it was interesting to note that none of them were particularly keen on it, and all thought it potentially damaged relationships on all levels and in all directions.

The research project: I asked both teachers what they thought of the project to try pencil-free homework, in terms of the potential benefits and problems. Both suggested that there would be some families who would not support their children in the speaking and doing homework or that some families would not know how to support the children; they both qualified these statements by saying that this problem would apply to all homework tasks. One was hopeful that as time went on, more children would engage with the pencil-free tasks: '*I think even if you just get half the class doing it to start with, if you talk about it and they can see how enthusiastic they are, I think it will rub off and the others will think, actually, I quite fancy doing that'.*

Hughes and Greenhough (2003) suggest that engagement with homework could, arguably, contribute to the widening of inequality, as some children are better

supported and make more progress as a result. Bloom (2009) reports on the work of Danielson et al (2009): *'Homework can be explicitly discriminatory because children from different social strata can have very different access to basic resources. A serious question arises as to whether any requirement of home resources (including adult support) can be equitable'.* This is an interesting and serious question, although there is something baffling about it: the inequity already exists, regardless of the homework.

Both teachers raised the potential difficulties of knowing whether a child had done the tasks, and this made one of the teachers feel rather uneasy:

> Miss D: *I don't know really what... The fact that there isn't a paper, there isn't something on paper, just feels awkward. It feels strange, but I think that's more from us than anyone else.*

This reveals something about the culture that has developed around homework, that the most important thing is to know whether or not a child has done it, rather than if they learnt anything from it. As already discussed in chapter two, this is a rather binary approach to the assessment of homework: it either has been done or it has not.

4.7 Summary of research findings for chapter, taking into account the views of the headteacher and two class teachers

- The Headteacher and both class teachers welcomed parental involvement and support with reading and spellings, and most supported the idea of children gaining regular practice at home with multiplication tables
- There were mixed feelings from all teachers about the benefits and hazards of homework, with some very strong anti-homework beliefs expressed
- There was evidence that the teachers set homework because it was what schools do
- There was evidence from all teachers that homework can create tensions between children and their parents, children and their teachers and between teachers and parents

- Two of the three teachers expressed concerns about the pressures children are under and the added pressure that homework brings, not just on children but on families

- Two of the teachers felt that the level of unknowns about how the homework was completed diminished its usefulness as an assessment tool

- There was strong evidence that the class teachers found it difficult to close the assessment loop and provide effective feedback on the homework for the children

- The teachers raised questions about the varying level of support children might receive with pencil-free homework or any other kind of homework

4.8 Conclusions for chapter

The evidence gathered and analysed from the interviews with the headteacher and two class teachers provides insight into a range of issues and with a variety of perspectives; there are some key themes that have emerged from the evidence, which I will outline in this, the concluding section for this chapter, and consider with reference to literature, drawing on the bullet pointed summary, above, of the research findings for the chapter.

A key issue to emerge from these discussions is what might be called the 'minefield effect' in relation to homework. This seemed to be a recognition by the headteacher and class teachers that the issue of homework raises a wide range of potentially conflicting views, some of which are very strongly held, from parents and children, as identified by Alexander (2010) and that the parents' expectations can weigh heavily on how the school devises a policy on the issue or how practice develops, and supports Hughes and Greenhough's (2002a) finding that many parents see homework as a sign of a good school, and this, at least partly, influences the school's approach to developing policy and practice.

A key finding in this chapter relates to the subtle dissonance between what teachers say they believe and how they feel compelled to behave, as Schon (1983, p. 17) suggests: *'practitioners are frequently embroiled in conflicts of values, goals, purposes and interests'.* The teachers held mixed feelings on the homework and were largely ambivalent about its actual, rather than symbolic, value; they set

homework because that is what schools do and because there was an expectation that they should do so.

Issues around assessment were prominent in the discussions with both class teachers, as both found it very difficult to make homework meaningful in terms of assessment and formative feedback, and perhaps this relates to the issues identified in the previous paragraph. If the teachers felt that homework was a meaningful and valuable activity in terms of learning, the need to engage in formative assessment would have been much greater, given the centrality of assessment to the learning process (Black and Wiliam 1998, Black et al 2002, Assessment Reform Group 1999, Clarke 2001).

The teachers were concerned about the pressures on children, both in the drive to raise standards in academic attainment, and in their busy lives, in which homework might well be just one more pressure (Alexander, 2010). They recognised that this also added pressures on parents to try to meet the demands of possibly working full-time, providing a range of opportunities for their children and finding time to support them with their homework.

Parental support and involvement was seen as an important part of school life, and all the teachers welcomed parental support in helping their children learn the 'basics', such as reading, spelling and multiplication tables. They identified the inevitable inequalities inherent in this, as some parents are more able and / or willing to support their children with their learning than others, as identified by Bloom (2009).

None of the teachers commented on the value of homework as a learning experience, beyond reinforcement of the 'basics' as identified above.

In this chapter, I have provided a summary of the initial stages of the research, which involved conducting interviews with the headteacher and class teachers at the school, and I have provided a summary of the key findings, including the important finding that those people responsible for setting and administering homework, the teachers, were largely ambivalent about homework and unconvinced of its potential to enhance children's learning. In the next chapter, I will outline the next stage of the

research process, which involved conducting interviews with those on the receiving end of the homework set by the teachers, the parents and children, to explore their experiences and perceptions of homework in general.

Chapter Five

The research, findings and discussion: initial interviews with children and parents, before the trial of pencil-free homework

Yes, sometimes when I can have, like, better things to do, I want to do them, but when I have nothing to do, when I'm bored, I sometimes just do my homework.

The aim of this chapter is to present an honest account of the next stage of the research, in which interviews were conducted with six children and parent pairs. The main findings of these interviews will be synthesised and summarised.

5.1 Introduction

Out of the ten parent and child pairs who originally said they would be willing to be interviewed, it was possible to arrange interviews with six, with two children from class C (years three and four) and four children from class D (years five and six); I was pleased with the balance and the number of volunteers as I believed they would give me a good insight into the issues across key stage two, and particularly in years five and six in which the amount of homework set was greater than in years three and four.

I chose to conduct semi-structured interviews (Cohen et al, 2007), as I hoped to create a relaxed and informal atmosphere in which children and parents would feel happy talking and sharing both their experiences and their views. Once again, there were some fine ethical lines to be considered as I prepared for the interviews; I was very keen to find out the participants' genuine thoughts about their experiences of homework, but I did not want to suggest, through my questioning, any implied criticism of the school which had been kind enough to allow me to conduct my research, or to make life difficult in any way for the headteacher or class teachers. For example, in trying to gauge whether the children thought about homework as being beneficial to them in any ways, I did not ask a question about why this school sets homework but about why schools in general set homework.

Similarly, I had some methodological issues to consider. Asking, 'Do you learn anything from homework?' would not be considered methodologically sound, as the

question is somewhat loaded, and invites a binary answer, which may or may not reflect the reality of experience. Instead, I chose to ask each child and parent to describe what happened in their household when the child had homework, and talk about a recent piece of homework. In this way I hoped to understand the lived reality of the participants, and, in doing so, to gain an insight into the impact of homework on the children's learning and enthusiasm for learning. See appendix 4 for a copy of the questions which I used to guide me through the interviews.

I had originally intended to set up a survey to canvass a wider range of parental views, but I decided against this for a combination of ethical and methodological reasons. Firstly, I was aware that the fact that I was doing this research project at all could make life difficult for the headteacher and the teaching team, as it allowed and invited parents and children to comment on a subject which is, most of the time, accepted as part of the normal educational regime in schools, but which raises some very strong feelings amongst children and parents. The issues I wanted to explore would potentially raise questions and comment about why the school set homework in the way that it did, and I wanted to explore the issues sensitively through interviews, as I was concerned that offering parents a survey may present opportunities for comments that questioned or challenged the school. Secondly, from a methodological position, I was interested in finding out the detail of perception on these issues, and several 'live' interviews offered me much more scope than the feedback from 'dead' surveys. However, as shall be seen in chapter nine, I was later able to access the results from a survey of parents conducted by the headteacher.

The interviews were conducted on the school premises in a small, private room, at the end of the school day. The participants, both children and parents, were asked to sign informed consent forms (see appendix 7 for an example); as they had all attended the initial information meeting, they felt that they had a clear understanding of what the project was about and felt happy to sign. They also signed the consent form to say they were happy for a digital voice recorder to be used; I explained that the recording would be kept until completion of the thesis and then destroyed.

I began each interview by asking a few warm up questions about what the children had been up to during the day, how long they had been in the school and what they enjoyed about it.

Using the transcript of each interview (see Appendix Ten for sample, interview with Parent and Child D4) as the basis for analysis, Nvivo was used as a tool to enable me to, initially, code the data using an open approach (Corbin and Strauss, 1998), identifying responses from children and parents that clearly related to the research questions and objectives, and also noting responses that were interesting or revealing; several comments were coded more than once as they had relevance to more than one focus or theme. The initial codings, arising from the data, were wide-ranging and collected under draft headings to enable me to see the range of issues, possible themes, and ideas that might form the basis of further analysis. Initially, these codings were listed in no particular order of importance, and there was considerable variation in how many transcript excerpts were allocated to each. Code-headings at this stage covered a range of issues: *the amount of homework, administration of homework, arguments and stress, assessment, children's motivation, 'getting it done', impact on learning, in-class learning, mixed feelings, parental support/involvement, parents' own school experiences, positives of traditional homework, potential benefits of pencil-free homework, potential problems posed by traditional homework, potential problems posed by pencil-free homework, preferred kinds of homework, preparation for secondary school, teacher relationships, time pressures, what happens when you have homework,* and *why do schools set homework?*

In order to organise the data further, connections between coding headings were identified, and themes and sub-themes began to emerge, in a dynamic and flexible way; for example, it was clear that there were links between *'children's motivation', 'getting it done'* and *'arguments and stress'.* Through identifying links and themes, it was possible to see that the data could be organised in two main sections: part one, Learning, and part two, Relationships. This is, I recognise, just one approach from the many possible ways in which the data could be organised but it seemed both coherent and appropriate in relation to the stated objectives of the study.

5.2 Part one: Learning

Within this section, the main themes to emerge from the data are: assessment and feedback, motivation and 'getting it done', why do schools give homework, and parents' learning about their children's learning. Within each of these themes, it has

been possible to cross-reference to the findings from the interviews with teachers reviewed in the previous chapter.

5.2.1 Assessment and feedback

Nearly all the children's responses corroborated the teachers' comments that, once the children had handed in the homework, they did not see it again, for example:

> Parent D4 (speaking to child): *Then what do you do?*

> Child D4: *I go and put it on Miss D's desk.*

> Researcher: *Right. And then what happens?*

> Child D4: *That's it.*

The use of the phrase 'that's it' appears to indicate that this is the end of the process as far as the child is concerned. They have fulfilled their part in the process; what happens next is none of their business and of little importance.

The children seemed to accept the binary nature of assessment; the work was either 'done' or it was not, it was either handed in or it was not. The children did not express any disappointment or expectation that they might see the work again; the main thing was just getting it done and handed in so that they would not have to stay in at lunchtime to do it.

Parents also commented that they did not get much indication on how well their children had done with homework, although they were sympathetic to the workload of teachers:

> Parent C1: *From my point of view, there's no feedback on their homework if they do it. I understand from the teacher's point of view that that's a huge amount, a whole class to go through, and they have to go through and mark it, or check it, or do whatever. So, again, I don't quite understand what the homework is really about in that respect.*

However, there was one clear example in which the feedback on homework had been beneficial to the learning; this is the best example of a child feeling that they were learning from homework and also the best example of feedback supporting the

child's progress. On a task set by Mr R, the children had to do some descriptive writing of approximately one hundred words, describing a photograph showing a scene of devastation from World War Two. The child shows how the feedback enables the teacher's expectations for the work to be made more explicit:

> Child D4: *and then he said 'I didn't think I quite got what I expected from you' because he wanted us to write similes and stuff like that, so we had to describe the dog was waiting for his owner obediently like a ball boy in tennis or something like that. That's what he was expecting ... Before most of the children just put something like what you would normally do, but, yeah, it's sort of... when he went through and told us what he expected, then we sort of thought 'Oh, I can do that,' and then he set us another piece of work and he said 'This is what I want you to do. That is the stuff I would like you to include and more description.'*

Given the work on formative assessment over the last decade, starting with Black and Wiliam (1998), it is unsurprising the best example of a child feeling that they were learning from homework is also the best example of feedback supporting the child's progress; this supports the claim of the Assessment Reform Group (1999) that formative assessment is a powerful element in teaching and learning.

5.2.2 Motivation: getting it 'done'

None of the children expressed a deep love of homework, and most seemed to experience a good deal of negative emotion associated with doing their homework, as the following comments suggest:

> Child D3: *I don't want to do it*

> Parent D3: *Yes. It's not voluntarily you get it out, is it?*

> Child D3: *I don't really want to. I do it because I have to.*

> Child D3: *A bit bored with most of it. It was hard.*

> ----

> Child D1: *Yes, sometimes when I can have, like, better things to do, I want to do them, but when I have nothing to do, when I'm bored, I sometimes just do my homework.*

> Child C2: *I don't want to do it. I don't like it.*

The following exchange reveals the attitude of a bright young student to his homework and his motivation for completing the tasks:

> Child C2: *I normally do it on the Monday morning when we are meant to hand it in.*

> Parent C2: *(laughs) I wasn't going to admit to that one. Yes, we usually retrieve this crumpled up bit of paper out of his bag and do it on the Monday morning.*

> Researcher: *When it comes to Monday morning, why do you do it?*

> Child C2: *Because I don't want to have to stay in at playtime.*

This child was quite typical; the motivation for completing the homework had nothing to do with learning and was entirely around avoiding a punishment. The fact that the homework sheet itself was treated with such disregard provides further evidence that this was not something that the child saw as important, but just as something to be done. The parent's response is interesting here, as it indicates that they do not take homework too seriously; as I will show in the section on the impact of homework on learning, this parent and child did not believe the homework was usually well matched to the child's intellectual ability.

However, not all children expressed reluctance to do the homework. Child C1 showed no particular enthusiasm, but did report doing the tasks when asked. Child D4, in year six, was philosophical about the demands of homework and had some routines that helped with tackling the high demand of the year six homework regime: '*Yes, we have a box and then we put it all in. So on Saturday I will do a bit and then on Sunday and stuff*'. This is not to say that he was always happy to do his homework, as will be seen in the section on arguments and stress.

5.2.3 Why do schools give children homework?

This question provoked a range of answers, some of which were very interesting, particularly from amongst the parents.

Child D2: *I don't know*

Parent D2: *To make you suffer*

Child D1: *Erm, to help you recap what you've been learning about, and to help you get more practice at what you're doing, er, and help you learn.*

Child C2: *Because they want you to learn more and they want you to like, erm, think about it more, because, like, in lessons you don't have much time to do it if you don't really know what you're doing, and then if you've got homework you can ask your mum to see what you have to do.*

Parent C2: *I think it's partly to get them used to doing homework because they're going to have to do it as they get older, so I think it's an introduction to doing homework and to supplement what they do. Some of it is useful and some of it is not quite so useful.*

Child C1: *Erm, to see like how good you are, like Maths.*

Parent C1: *I actually don't know why teachers set homework. I really don't. Personally, myself, I don't think homework is that relevant. Personally, myself, my wife and I say differently. The background she came from was completely different to mine. I really just don't see the point.*

Child D4: *Erm, well our teacher is always saying you have an hour a night or something in secondary school and they want to prepare you for that. I don't know. I think it's maybe for you to do better in your SATS and stuff.*

Parent D4: *Yeah, in general... I guess they're setting homework so it consolidates what they have done during the day, but then sometimes it doesn't seem like that because the homework they have doesn't seem to have any relevance of what they've done during the day.*

There was some consensus on this issue, although, considering the time and effort invested in the process of homework by teachers, teaching assistants, children and

parents, there was also a very large degree of uncertainty about the purpose of homework and whether it was achieving its purpose. This also reflects the high degree of ambivalence expressed by teachers in the previous chapter. This is a significant finding, as all participants seemed to be prepared to invest time and effort into a process that, upon reflection, they were unsure about. Kohn (2006, pg. 3) suggests that many parents and teachers treat homework as a fact of life without ever stopping to ask some fundamental questions about it:

> *After spending most of the day in school, children are typically given additional assignments to be completed at home. This is a rather curious fact when you stop to think about it, but not as curious as the fact that few people ever stop to think about it.*

Several interviewees seemed unsure about the purpose of homework, and one seemed quite convinced of the pointlessness of homework (see transcript excerpt above for the very sceptical views of C1's parent). This accords well with the findings of Alexander (2010) who also found one parent who expressed very strong anti-homework sentiments.

Others felt that homework should be consolidating work done in school, although there was concern over whether it was actually working.

Some expressed the view that the main purpose of homework was assessment; to some extent this is supported by the response of the teachers about the fact that they mark all the homework themselves; however, both teachers admitted that there was no way of knowing how much help children were receiving at home, and therefore it was difficult to use the homework as reliable assessment evidence (see page 59).

Interestingly, only two people mentioned the word 'learn' in their response: Child D3: 'so you can learn more'. However, this appeared to be challenged by the parent:

Child D3: *So you can learn more.*

Parent D3: *Do you think?*

Child D3: *Yes.*

Parent D3: *Do you think you learn more?*

Child D3: *Yes. You learn more and make everything easier to remember things.*

And later:

Interviewer: *Child D3, you said that schools set you homework so that you can learn... if you like, you learn more from it. Is that what happens?*

Child D3: *Sometimes.*

Parent D3: *Not really. No.*

Child D3: *No. Sometimes you can get better imaginations with the literacy ones.*

Parent D3: *I think sometimes on the maths front, you know, because obviously I've been able to sit down with him one to one where he's struggled with something, then all of a sudden the light goes on and he goes 'Ah, I got that.' So from that side of it, that does help.*

Parent D3's responses suggest mixed views on the value of homework, from slightly sceptical to acknowledging some potential benefits for her son, although she seems to suggest that these beneficial moments are an occasional occurrence and require an investment of time from her in supporting her son. Her mixed and ambivalent views on the value of homework accord well with those expressed by the teachers in the previous chapter.

One child (D4) reported that their teacher suggested that homework in primary school is a kind of preparation for the fact that they will get more homework in secondary school, although the child did not seem convinced ('*I don't know*') and they did not say how they believed their current homework would help them prepare for the future demands. The same child, who seemed to be perceptive in many ways, suggested that homework was given '*maybe for you to do better in your SATS and stuff*', but he did not go on to say whether this was for his benefit or for someone else's.

5.2.4 Parents' learning about their children's learning

One of the major arguments put forward in favour of homework is the positive impact it has on partnership with parents (DFES, 1998). In the next section of this chapter we will explore some of the complex issues related to partnership and whole-school relationships as affected by homework; here, I will present findings related to the perceptions of parents about the degree to which homework provided them with an insight into their children's learning.

Parents expressed the view that homework that presented the children with little challenge was not something they engaged with to any great degree, and, consequently, it did not provide much insight into their children's learning:

> Parent C1: *I think the thing is with some of the stuff he gets, if I felt he was struggling with it, you'd actually spend more time with it, but because he can fly through it and you know he knows it, you tend to just skip over it.*

> ---

> Parent D3: *No, we don't really find out much from homework. Obviously, you get the general gist because it's apostrophes, or it's, you know, whatever, topic-wise, but it doesn't lead to discussions about what has been done in class.*

On the other hand, parents enjoyed opportunities to discuss their children's learning informally at home, but found this was not always easy.

> Parent D3: *Yes, if they bring things home you get to see it. Yes, that is again something I have to kind of drag out of him 'What have you done at school today?' You're not a great one for talking about school, are you?*

They were pleased if they found that homework could support this process, although this was seen as serendipitous:

> Parent D1: *Funnily enough, we were talking about you were doing about the olden days in history, weren't you? Victorians I think it was. We were talking about workhouses and that.*

> Child D1: *Yes.*

Parent D1: *And you were saying you were going to be doing the Victorians, and so we struck up a conversation about what it was like living in those times, and it reminded me and so I shared that with her, and then all of a sudden we got a sheet of work that came back from school which was exactly what we'd been talking about, which was good, wasn't it?*

5.2.5 Summary of research findings for sub-chapter, taking into account the views of children and their parents

- Children received minimal feedback from teachers on their homework, and this contributed to a feeling that it did not generally impact on learning

- The clearest example of learning from homework, from a child's point of view, was also the only example in which developmental feedback was seen as beneficial in terms of helping the child with their learning

- The children's motivation for homework varied, but most children expressed a fairly hefty degree of reluctance, and the parents were not that eager either

- Overall, there was little consensus amongst the children and their parents as to why schools give children homework, with answers related to enhancing learning, consolidating school learning, as a way of teachers' assessing attainment, preparing the children for the demands of the homework regime in secondary schools, and responses questioning the point of homework, and several responses of 'I don't know'

- There was some uncertainty about the purpose of homework and whether it was achieving its purpose, particularly amongst parents, and this accords well with the views of teachers expressed in the previous chapter

- There was limited evidence that homework provided parents with valuable insights into their children's learning

- Once again, the theme of 'mixed feelings' came strongly through the comments made, particularly by the parents, as they wanted to do their best to support their children and the school, but experienced tensions in doing so

5.2.6 Conclusions for sub-chapter, part one: Learning

The evidence gathered and analysed from the interviews with children and parents provides some good insights into the perceptions of the participants in relation to the

impact of homework on the children's learning. In this, the concluding section for this chapter, I will outline the main themes drawn from the evidence.

In this section, three inter-related themes emerge as significant: the lack of consensus on the purpose of homework, the extent to which children received meaningful feedback on their homework, and the impact of both of these issues on the children's motivation to undertake the tasks.

In the sample of children interviewed, levels of motivation for homework varied from very reluctant to accepting, with most responses being at the 'reluctant' end of the range. According to Kohn (2006, pg. 17), this is fairly typical: 'Most kids hate homework. They dread it, groan about it, put off doing it as long as possible'. Two possible reasons for this reluctance may relate to the levels of uncertainty about the purpose of the homework tasks and the limited extent to which effective formative feedback was provided for the children on their homework.

The variety of answers about the purpose of homework suggests that there was little shared understanding about its intended purpose or what it was designed to achieve, and this accords well with the research of Hughes and Greenhough (2002a), who found that most of the Key Stage Two children they spoke to did not know what homework was for, and did not, therefore, see a link between homework and their learning. Interestingly, in my interviews, the parents did not offer any greater degree of consensus than the children, with one convinced that there was no good reason for schools to set homework. It is likely that the children's lack of certainty about the purpose of homework has had an impact on their motivation to get the homework done.

The second issue likely to have a profound impact on the children's motivation to complete their homework tasks is the extent to which they believe they receive valuable and meaningful feedback on those tasks; the Assessment Reform Group (1999, p. 4) identifies 'the profound influence assessment has on the motivation and self-esteem of pupils, both of which are crucial influences on learning'. From the interviews with children and teachers, it is clear that, although the teachers invested some considerable time in marking the homework, the children received minimal formative feedback on their homework tasks. Where specific formative feedback on

homework was provided, this was seen to have a positive impact on learning and encouraged the pupil to apply themselves, on a later occasion, to a related task.

In this section of the chapter, I have provided a synthesis of the evidence that emerged under the heading of 'Learning', and presented findings that show that the families' reflections on their experiences of homework did not suggest that the homework had any great impact on learning, and that there was a lack of consensus even about the purpose of homework. Against the backdrop of this level of uncertainty and ambiguities about the learning benefits of homework, and the great investment of time made by all parties into the homework process, in the next section of this chapter I will provide a synthesis of the evidence that emerged under the heading of 'Relationships'.

5.3 Part two: relationships

Relationships underpin the work of primary schools, as acknowledged by the Alexander Review (2010) and the Rose Review (2009). Good relationships with children and parents are seen as essential and it should be assumed that primary schools have a commitment to supporting parent/child relationships, as there is considerable evidence that strong, positive relationships at home provide a healthy basis for a successful life (Skynner and Cleese, 1983), as outlined in relation to the Every Child Matters outcomes in The Children's Plan (DCSF, 2007).

Within this section, the issue of relationships is considered in three dimensions: parent/child, child/teacher and parent/school. The main themes to emerge from the data are: parental support and involvement with homework, time and other pressures, arguments and stress, and the impact of homework on teacher/pupil relationships. Within each of these themes, it has been possible to cross-reference to the findings from the interviews with teachers reviewed in the previous chapter. Once again, as in previous sections, the theme of 'mixed feelings' will become apparent throughout.

5.3.1 Parental support and involvement in homework

There was considerable variation between the families in the ways in which they approached homework and the extent to which parents got involved; it is worth noting that parents' getting 'involved' with the homework was not always seen as 'supportive' by the children.

All parents interviewed showed that they wanted to get involved with their children's learning and support them, and some found that homework provided a suitable opportunity for this kind of involvement. However, where getting the homework done became an end in itself, parents found that their involvement was about helping their child complete the task rather than develop their understanding.

> Parent D3 (discussing literacy homework): *You just don't like it, do you, very much? So it does become a real drag, I have to say, to do it, and actually we do find that we get into that 'Let's just get it done.' And he doesn't want to talk about it, you know, so it is just a 'Let's get it done, and over and done with.'*

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Some children relied heavily on just one source of support with their homework, whereas others found that they could call on help from across the extended family.

> Researcher: *Right. What happens if you've got homework and you think 'I don't understand that?' Who helps you?*
>
> Child D2: *My sister, mummy, daddy, and when I was at grandma and pappy's, grandma and pappy. That's it.*
>
> Researcher: *So lots of people that can help you then. Does the help that they offer you, does it actually help? Are they helpful when it comes to helping you with your homework?*
>
> Child D2: *Yes, but if they don't know, not really.*

This last comment by Child D2 is telling: if the parent or other supportive person within the home does not understand the homework task, or lacks the subject knowledge to help, or does not know how to support their child's learning, the child does not receive the support they may like, even though the parents and others may be very willing to help.

One parent, D1, was clearly at pains to ensure that he was there to support his daughter in a way that he himself had not been supported in his childhood, and generally this was appreciated by his daughter.

> *We'll read through it. Sometimes I'll just sit there and I'll read through it with her just to see what she's doing because that's something that no one ever did with me when I was younger. Because I was at boarding school, I always felt like I could have done with asking a question to somebody. You know, so I try to be there so that if she's got something that she needs to look up on the internet or something we can figure out what she needs to do to try and make it a little bit easier ...*

Although he was happy to help her as much as he could, he sometimes found that the way in which certain topics are taught now has changed considerably since he was at school, and he struggled to understand some of the 'modern' approaches to teaching; this was particularly true in maths where the emphasis now is on children understanding what they are doing with the numbers rather than just following a recipe to the right answer. This is explored further on page 89 in the section on 'arguments and stress'.

5.3.2 Time and other pressures

Most families in the study reported finding that there were many demands on their time and that homework constituted one more activity to be squeezed into an already busy weekly schedule: 'sometimes it tends to be a bit rushed, you know' (Parent D1). This was not just a result of the fact that the parents were busy with work and other commitments, but also reflected the fact that the children had increasingly hectic lives themselves as they engaged with a variety of after-school and independent clubs and activities, as well illustrated by Parent C1:

> The thing is, because of the amount of after school stuff... As I say, Monday is the only day really where he actually doesn't do anything after school. Tuesdays we're out with her (youngest daughter) at ballet. Wednesdays they're at the child minders. Both my wife and I work on Wednesdays until late. Thursdays he's here until four doing football, and by the time he comes in he's knackered. And then Fridays my wife's at work...

All parents wanted their children to enjoy a range of activities and also to have time to play; these provide children with opportunities to develop a range of sporting, musical and other skills, as well as social skills and confidence. Perhaps these activities also contribute to a happy and well-balanced childhood. The most conscientious of the children I interviewed obviously enjoyed a range of sporting and social activities throughout the week, but also tried hard to get all his homework done on time.

> Child D4: It's quite hard to fit it all in. I do it most of the times but it's just occasionally we have to do reading and we have to get three signatures. They sign it on a Wednesday and then by the next Wednesday you have to get three.

> Parent D4: You get too stressed by it. You should just learn to just don't worry too much, Child D4.

> Child D4: You can't because then you get told off.

> Parent D4: No, you don't. You just need to...

> Child D4: You do. You don't want to get told off because you think that's stupid because I could have got it over and done with and then not get told off.

Parent D4: *But when you're doing it at half past nine at night, it's not really going to benefit you to just get a signature. It gets a signature but then it means you're later to bed and grumpier in the morning.*

The result of this pressure on time often seemed to be that the homework was squeezed, and the excerpt above demonstrates that the children became more concerned to get it done than to learn anything from it, and their motivation was normally about avoiding getting told off, rather than learning. As pointed out by Parent D4, the child's concern to ensure that they completed the required number of tasks probably had a negative impact on their tiredness levels, and possibly their ability to concentrate, the following day.

5.3.3 Arguments and stress

Nearly all families reported some element of stress involved in fulfilling the demands of the homework regime; some of this related to parents and / or children becoming stressed over the demands of the task, and much related to the interactions between parents and their children over 'getting it done'. However, as we shall see, not all parents and children felt anxiety over homework.

Some parents suggested that their children needed 'encouragement' to get down to work; most reported that this was usually reasonably unproblematic, but that it sometimes created tensions that were less positive:

Parent D1: *Yes, but it can be a stressful experience sometimes. We tend to do it like this. I've developed a new way of doing it now. If she gets her homework, she'll come home on Friday and she's got ten questions to do, I'll say 'Right, do three questions today, do three questions tomorrow, and then do the remainder before you go back to school' so that it doesn't seem like it's a burden. You know, because that's what it is. It's a case of 'I've got all this work to do, you know, but I want to enjoy myself as well.'*

Researcher: *Yes.*

Parent D1: *So it's just creating a balance really, isn't it?*

Parent D3: *Erm, obviously, as the days are getting lighter, as the evenings are getting lighter, it gets more 'Oh, I don't want to do it.' I mean generally you're not too bad. We do get a bit of a sulky face when I say 'Where's your homework?' But he'll go and get his homework, and come and sit downstairs and do it reluctantly. There's not too much of a drama over it. .... When he wants to be outside playing with his friends and I'm making him sit down and do what he doesn't want to do, it doesn't make for a great atmosphere, does it, at home?*

Tensions of this sort clearly arose when the child did not want to the do their homework and the parent felt that they should be encouraging them to get on with it. With hindsight, I wish I had explored with the parents why it was that they felt they had to encourage their children in this way, with all the potential for tension that was associated with it and why they did not just let their children get into trouble if they chose not to do it. This is a major question and one which, as outlined in chapter one, I feel deeply affected by in my own experience as a parent: why is it that parents feel they must act as extensions of the school staff and insist that their children do their homework. As outlined on page 82, positive relationships at home underpin a successful start to life and, in one sense, it is counter-intuitive for parents to put their relationships with their children under strain to achieve the completion of a task on behalf of a school.

Child D4 and his mum presented a fairly similar picture, in which the tensions that arose sometimes reached epic proportions, but not all the time:

Parent D4: *We fall out more on the literacy. Child D4 doesn't like me interfering because I go and see spelling mistakes or words that he could have used more descriptive words, and you get quite...*

Child D4: *It drags some of it...*

Parent D4: *Only because it's going to take more time. He knows when I'm there trying to help him or correct him, he knows it's going to take longer, so therefore you don't like it. You say 'I don't like it when you help me' but it's only because it's going to take longer.*

Child D4: *Yeah.*

Researcher: *So when you say 'fallout', what happens?*

Child D4: *Mum says 'you're doing it and that's final' and I say 'But what if I don't want to do it right now?' and then Dad will get involved and he'll start shouting and stuff. You'll have mum out in the garden doing something she wants to do, and dad will be sat watching the rugby in a sulk, and I'll be in my room playing on the Playstation.*

Parent D4: *Is that a good description?*

Researcher: *That's great.*

Child D4: *So that's what will normally happen.*

Parent D4: *But it's not every week.*

Child D4: *It's occasionally.*

Researcher: *Yeah. Let's try and get a sense of proportion on that.*

Parent D4: *This is probably once a month, I would say. This is if he gets something particularly challenging that he doesn't want to do. A few weeks can go by and it's all quite... you know, we've helped with science. In fact sometimes we have quite good fun because we look up things that we don't know, we get encyclopaedias or whatever, and we research stuff other times, mainly literacy, I would say.*

Once again, the mixed feelings are apparent here, as the parent shows that homework is not all negative and can be positive, with both enjoyment and learning benefits. However, the potential for negative tensions, caused by homework, between members of the family is well illustrated in this description. There are approximately forty school weeks in an academic year, so this family estimates about ten of these 'falling out' episodes per annum.

However, not all families reported such tensions: Family D2 was the only one which seemed to find homework an almost entirely stress-free experience. When asked about how she tackles her homework, Child D2 responded:

Child D2: *I take it out. I wait until a bit later on Saturday, or Sunday, or Friday, and then I just do it so I can have the rest of the time to play.*

Researcher: *Right. Okay. Does she need any encouragement to get started?*

Parent D2: *Not usually, no. I sort of say 'Have you got any homework,' and it's 'yes' and she does it.*

This response was very atypical, and suggests, perhaps, that homework *per se* cannot be judged to be the root of all tensions within the household, but, rather, that it is sometimes something of a catalyst or focus for tensions to become manifest. Child D2 did not always enjoy her homework ('*it was too hard and a bit boring*'); it was hard to judge whether she approached it with indifference, resignation or some other motivation, but she did ensure she got it done.

Although she was pleased that homework did not cause tensions in the way that she knew it could in other families, Parent D2 did suggest that in some ways she hoped the pencil-free homework might have a positive impact:

Parent D2: *I might be able to get involved a bit more in homework.*

Researcher: *Yes. Is that how you feel at the moment that you don't get involved very much with it?*

Parent D2: *No, I don't really. But then I work shifts so it's quite difficult sometimes, but Child D2's older sister has always just done her homework and Child D2 just does the same, so it's nice that I'm not... you know, I am there if I am needed.*

The other family which seemed to find homework reasonably stress-free was family C2 (the crumpled bit of paper on Monday morning family).

Researcher: *So on the Monday morning when you suddenly think 'Ah', who remembers? Who thinks 'We must get that maths homework done?'.*

Child C2: *Sometimes me and sometimes mum.*

Parent C2: *I do mention it all week, but Child C2 is not one you can bully into it. My daughter was always very malleable, but Child C2 is just like...*

Researcher: *So is there ever any stress involved or is it just no he doesn't do it?*

Parent C2: *Not really, is there? No. If he gets something more important to do, he's more 'I've got to do this straightaway.' It's almost stressful then. He's like 'I've got this to do and I will do it straightaway'.*

This family seemed wonderfully unconcerned about homework; Child C2 would get it done to avoid the punishment of staying in at breaktime, but usually in as perfunctory way as possible, unless it was a task he attached some importance to.

Another main source of tension was over the homework itself, particularly if it was challenging, or difficult to understand:

> Child D1: *Erm, well, sometimes when I can't do my homework I get stressed.*

> Parent D1: *Yes, and you ask for me to help, don't you?*

Her father's involvement was welcomed by Child D1, although he identified this as another potential source of tension, as he felt he was not always able to support her sufficiently well with the 'modern' approaches to learning. He was very happy and willing to help, but felt baffled by approaches that seemed quiet alien to him.

> Parent D1: *You know, so I try to be there so that if she's got something that she needs to look up on the internet or something we can figure out what she needs to do to try and make it a little bit easier..*

> Researcher: *Mm. So when you said you felt stressed with it, is that the times when you can't do it or is it any time?*

> Child D1: *Well, sometimes I get stressed when it's too hard.*

> Researcher: *Okay. And your dad helps then.*

> Child D1: *Yes.*

> Researcher: *And when your dad helps, does that help you get less stressed?*

> Child D1: *Yes.*

> Researcher: *It does.*

> Child D1: *I can understand the question better.*

> Parent D1: *But unfortunately daddy is not a teacher so sometimes daddy doesn't know what you're up to. That's the trouble sometimes.*

> Researcher: *Well, things have changed a lot haven't they?*

Parent D1: *Yes.*

Researcher: *Even how to do things in maths has changed since we were at school.*

Parent D1: *From when we were at school. It's all different now. I didn't do kilos and whatever when I was at school. So it was all, you know... It's like the way they work things out as well, and the long division and whatever, they do it all differently these days, you know.*

...

Parent D1: *I teach her the way I was taught, basically. If she comes out and she's got to figure out a sum, I'll show her how to carry the ones and whatever, but they don't do that at school. They have a line or whatever and they do all this. It's beyond me.*

Child D1: *Sometimes daddy tells me to do it his way, but we're meant to do it the way we've been taught.*

Parent D1: *But I can only explain it to you the way I learnt it, that's the trouble, you know. The way Child D1 seems to do it is it almost seems cacky-handed sometimes, you know. We get there, though, don't we?*

Child D1: *Yes.*

Parent D1: *It has improved. Her maths has improved, you know.*

This parent believed that homework could be beneficial in supporting learning, but also illustrated the challenges inherent in trying to support his daughter in her learning when the ways in which he was taught to solve problems are very different to the approaches used in schools today.

Parent D1: *We seem to get on well with homework. It can be quite stressful sometimes because sometimes you find the questions very, very hard, and sometimes they even stump me the way they work it out, you know. I think to myself 'I'm not exactly sure which way to go about this myself.' And then you get frustrated, don't you?*

Child D1: *Yes.*

Parent D1: *Because we're supposed to be walking encyclopaedias, apparently.*

Once again, the mixed feelings are apparent here, with the parent feeling that, although they get on well with the homework, there are many tensions and challenges associated with it. In a way, this family seemed to accept that the tensions and challenges were part and parcel of homework, the father describing it as 'a blessing and a curse'.

5.3.4 The impact of homework on teacher/pupil relationships

Given the importance of relationships in primary schools, it was particularly significant to note the corrosive effect that homework had on the relationship between children and their teachers; interestingly, the homework itself was not shown to have the negative effect, but rather that 'not doing' the homework caused tensions. I suggest that the teachers found themselves facing a difficult question: how do you respond when a child has not done their homework? If there is no sanction, nagging or telling off involved, the children might begin to believe that homework is not that important. On the other hand, as shown in chapter four, the teachers' own comments about homework reveal an underlying ambivalence about the value and importance of it, but they feel compelled to do what teachers do: follow up on homework that has not been submitted and keep children in at breaktime.[5] As shown in the section on children's motivation, this approach certainly played a major role in ensuring that the child did their homework.

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[5] An analogous example: when I taught in London, the school uniform policy stated that children should wear school shoes during lessons, but that they were allowed to bring in trainers to wear at break and lunchtime; children who enjoyed playing football during these sessions were particularly keen on bringing trainers with them to school. On the face of it, this policy sounds sensible, as it saves the children's school shoes from being ruined and shows a degree of flexibility about the application of school rules. In reality, what happened was this: children would forget to take their trainers off when they came in from break, sometimes they would just try to get away with wearing their trainers in lessons, and several children would start the day in trainers. The result of this was that teachers would spend a disproportionate amount of time reminding children about the school uniform policy and nagging them about their school shoes, even though they may, like me, not have had any particularly strong feelings about whether trainers or school shoes significantly added or detracted from a child's learning experience.

In the following extract from the transcripts, Child D2 reports on the kind of occurrence which can be seen as entirely innocuous, but which, if read with the understanding that this could be repeated every day with several children in the class, can begin to reveal something about the on-going potential of homework as a site of tension between teachers and the children, even when, as in this case, the homework has actually been completed.

> D3 Child: *I sometimes leave it in my bag. Then when we have to... And then the teacher comes and says to me 'Where's your homework?' and I say 'It's in my bag'.*
>
> Researcher: *What does the teacher say then?*
>
> D3 Child: *Go and get it, sometimes. Sometimes they say 'get it at play time'.*

Child D3 is one of the children who readily admitted to not enjoying homework; it is interesting to note here that, even when he has done his homework he does not always remember to hand it in of his own accord, but needs reminding by the teacher.

One of the most impressive and perceptive insights in the entire research project came from Child D4, and, although this excerpt from the transcript is quite long, it is worth including in its entirety:

> Child D4: *You get worried because you think when I go in there at school and it's not there...*
>
> Parent D4: *It's good because you won't get too many detentions at secondary school if you're like that.*
>
> Child D4: *If it's not there then you get told off. I don't like getting told off.*
>
> Parent D4: *That's good to be like that.*
>
> Child D4: *You get worried and then you ask the teacher 'Can I have some help' and they're not as what they would be if you hadn't got told off that five minutes before for not doing your homework or something.*
>
> Parent D4: *The teachers are nicer, you mean.*

Child D4: If *you hadn't got told off... There's one boy and he always does his homework and everything, but when he doesn't bring his homework in the teachers are a bit off with him, so sometimes you think 'I have to do it because if I'm stuck with something they're not going to be as helpful.' They will be helpful but they won't be as because they're a bit annoyed with you because you haven't done your homework or brought it in. It is, though.*

Parent D4: *That's fine, Child D4.*

Child D4: *My friend didn't bring it in and the teacher wasn't helping him. She just said 'Write that down.' She was still being helpful but not as.*

I was struck at the time, and still am every time I read this transcript, by the perceptiveness of this year six child. I did not go back to the class teachers to discuss this, but, in my experience, most teachers would claim to be able to maintain a professional relationship with all the children in the class, regardless of factors such as homework submission or non-submission; this eleven year-old child was able to present a child's-eye and honest view.

This is a very significant and important issue: the teachers seemed to accept that nagging children about their homework was, although undesirable, a necessary part of the job, whereas this child was able to identify the fact that nagging children about their homework was actually preventing the teachers from doing their job as effectively as they might otherwise have done.

Another thing that this extract from the transcript reinforces is the binary nature of assessment of homework; as seen by Child D4, the teacher seemed, at least in the first instance, to be more interested in whether the homework had been submitted rather than other factors, such as whether the child had tried hard or learnt anything. [6]

However, comments by Child D4 suggest that not all children worry to the same extent about homework:

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[6] I should be clear, here, that I do not sit in judgment on the teachers or the teaching profession, as I am part of it, and struggle within it, and particularly struggled with homework when I was a classroom teacher.

Child D4: *Some other children... A few of my friends, erm, they said 'I haven't done my homework' like laughing, and I said 'It's not that funny, actually.'*

Parent D4: *It's because you worry about it, Child D4.*

Child D4: *And then they get told off but they still laugh. You just think 'What's the point because it's your fault.'*

It is hard to know, of course, whether these reflect the children's true feelings or have more to do with peer-status pressures.

5.3.5 Summary of research findings for sub-chapter, taking into account the views of children and their parents

- Nearly all families, five out of the six, reported stress associated with completing homework, related to time pressures, arguments over getting it done, and issues arising from parents not feeling able to support their children with 'modern' approaches to solving problems

- For children, stress over homework was mostly around the consequences of non-submission

- Other stress factors related to finding the work hard or, sometimes, easy

- Other stress factors related to the difficulties parents had in encouraging their children to do the homework, and in supporting their children with the tasks

- Two families found homework a reasonably low-stress issue: in one family the child always did their homework when asked and often before being asked; in the other, homework was accorded low importance and done on the morning on which it was due

- One child perceived teachers would not be as helpful in school lessons if they had just told you off for non-submission of homework

- Methodology: The parent / child interviews were an effective approach, providing honest and valuable insights into the issues

5.3.6 Conclusions for chapter

The evidence gathered and analysed from the interviews with children and parents provides insight into a range of issues and with a variety of perspectives; there are some key themes that have emerged from the evidence. In this, the concluding

section for this chapter, I will outline the main themes, considered with reference to literature.

Those children who lacked 'intrinsic motivation' for getting homework done cited the consequences of non-completion, normally staying in at lunchtime, as being the main motivation for getting the work done on time, even if at the last minute (Child C2). These sanctions related to non-completion of homework contribute to children's feelings of stress.

It is clear that the parents I interviewed wanted to do their best for their children and this often led to some tensions when it came to homework. In hindsight, I believe an area of discussion which was under-explored in the interviews was the motivation parents had for supporting their children in the ways they did. A key issue here is the subtle balance between supporting your child and supporting your child's school. This would have been a difficult issue to explore with parents, but potentially interesting. I have already established in chapter four that there can be a difference between a teacher's espoused theories and the theories seen in action (Schon 1983) and similar tensions may well exist for parents. I doubt that many parents would describe themselves as 'agents of the state', as suggested by Smith (2000), but many would recognise the tensions inherent in supporting their children to cope with an externally imposed regime.

The findings in relation to the impact of homework on relationships in the home are significant and similar to those in the research of Lacina-Gifford and Gifford (2004); most families reported arguments and stress associated with homework, largely around the issues of 'getting it done'. However, since there is an anomaly here (Child D2 who 'just does it'), it would perhaps be best to conclude that homework is a catalyst or locus around which tensions can arise, rather than being the cause in all cases.

One other area of stress for parents and children is around the issue of parents knowing how best to support their children with the tasks, and some struggled with what might be referred to as 'generationally divergent pedagogy', in which how things are taught to children now is not how their parents were taught when they were at school; for example, parent D1 identified that approaches to mathematical

calculations have changed considerably since he was at school: '*unfortunately daddy is not a teacher so sometimes daddy doesn't know what you're up to*'. This correlates well with research by BECTA (2010) which suggests that over half of nine to thirteen year olds find their parents' explanations confusing.

One of the most important insights revealed in this chapter relates to relationships in school, and the impact of homework on teacher / pupil relationships. The daily cycle of checking that children have done their homework and handed it in and following up on non-submission is just a part of the picture in relation to the impact of homework on teacher / pupil relationships. The suggestion that teachers will not support a child in class as effectively if they have just had to berate them for non-completion of homework is a profound and important observation, and perhaps goes to the heart of whether homework is ever effective; effective relationships underpin all aspects of primary school education, as supported by Alexander (2010, p. 289): '*Effective learning is developed in relationships between teachers, children and peers*'; as I will show further in chapters six and eight, teacher / pupil relationships also underpin effective engagement with homework. This raises the question as to whether the benefits of homework can ever outweigh the potentially negative effects on teacher / pupil relationships.

A methodological conclusion was that the parent / child interviews were very effective in creating a relaxed discussion in which some honest insights were provided about the impact of homework on the children's motivation and on relationships within the home. Both children and parents were, apparently, open and forthcoming and the interviews had a positive dynamic, in which children and parents engaged in discussion with each other, as well as with me.

In this chapter, I have provided a synthesis and summary of the findings from the first round of interviews with children and their parents, in which we explored their experiences and perceptions of homework. These revealed that, while some children and parents identified some benefits associated with homework, particularly in the case where useful feedback was provided on the learning, homework was often identified as a locus of tension, a cause of stress and contributory factor in the

erosion of positive relationships. The introduction of pencil-free homework, described in the following chapter, was designed to alleviate some of these tensions and challenges; in chapter six, I will provide a description of the next stage in the development of the project, the selection of the pencil-free homework tasks, and the results of observations undertaken of the classes feeding back on some homework tasks.

Chapter Six

The research, findings and discussion: the pencil-free homework

The aim of this chapter is to provide an insight into the next stage of the development of the project, in which the school began utilising pencil-free science homework tasks. It provides a summary of an approach to gathering data in the form of observation, and a synopsis of the findings.

6.1 Introduction

One of the subtleties in conducting this enquiry has been judging the fine line between guiding the project and also operating as 'guest' in the school. This was particularly apparent in the negotiations over which classes should be involved in the project and which tasks should be used. In listening to the recordings of my discussions with the headteacher and with the science teacher, Mrs J, it is clear than I did not want to appear to be imposing my suggestions on the school any more than was necessary to enable us to undertake the project in line with my stated aims.

It was very useful, then, at this stage of the negotiations around February and March 2009, that I was, with a small team of colleagues from the University of Gloucestershire, on the verge of submitting both the complete text and pictures for publication of '*Science Homework for Key Stage 2: Activity Based Learning*' (Forster et al, 2010) to be published through David Fulton later that year. This was advantageous in two inter-related ways. Firstly, it enabled me to give a fairly clear 'steer' of the kinds of activities I had in mind when I talked about 'pencil-free' homework in primary science, as I was able to show some examples of the tasks that had been drafted for publication. Secondly, it provided a useful resource bank that enabled Mrs J to select tasks that were appropriate to the learning needs of the classes, without starting entirely from scratch. I was able to leave a CDRom of all the activities with her, from which she selected those activities that she felt were most appropriate. I was happy to work with her to create new tasks, but, in the event, she was very happy to make her selection from the tasks available on the CDRom, and this suited me very well, as a trial run of some of the tasks to be

published, and also made minimal demands on the time of Mrs J in terms of negotiation and production of tasks.

6.2 Choosing and administering tasks

For class C, years three and four, Mrs J chose tasks that related to the topic for the half-term 'Helping plants grow well' and for class D, years five and six, she chose tasks that related to a variety of topics covered over the previous two or three years. We had agreed, at the meeting in February 2009, that children in year five would be given the homework as a matter of course, but that the year six pupils would be offered the tasks as 'optional extras', as they were already undertaking significantly increased amounts of homework in preparation for the SATs tests to be taken in May. In the event, it turned out that none of the year six children volunteered for 'extra' homework, which probably is not a surprise ...

All the homework tasks used can be seen in appendices 1 and 2.

Mrs J gave out the homework tasks each week, with an explanation about what was required, and she informed the children that they would be having a discussion the following week, in class, about the activities and discussions that the children had had during the week with their parents or other people in their family. She planned her lessons so that the first fifteen minutes, approximately, of each lesson would be given over to reviewing the homework in this way.

6.3 Observations of feedback sessions

In the third week of the half-term, Mrs J invited me to sit in on the first part of the lesson in each class, when they were feeding back on the homework tasks and how they had got on with them. I was pleased to take her up on the offer, although I did not have a fully developed idea about what information I might glean from these observations or how the data might be best gathered. However, I decided that the ethnographic opportunity it afforded was likely to provide me with some useful insights into how things were going, so I decided I would take as many notes as I could, and try to identify any significant aspects that arose from the observations.

An ethical dilemma here related to the fact that I had not sought parental permission to observe these feedback sessions; however, the headteacher agreed that there could be no harm to the children by my observing these sessions, as they were very brief, conducted by the science teacher, and I held a current CRB enhanced disclosure certificate. We agreed that I would not record the session, either by video or audio, and I would just take minimal notes and would conform to all the other commitments I had already given related to data management.

Class C (years three and four), Tuesday 5th May 2009, bean germination and covering grass (see appendix 1a, Tasks and appendix 1b, Task 2): The children reviewed two activities in this session. In the first task, every child had been provided with a transparent plastic pot, some newspaper to go inside, and a broad bean seed to wedge down the side; the intention was that they should add water and observe and discuss what happened. As several had found that the beans they had taken home two weeks previously had not done very much in the first week, Mrs J decided to discuss this task again during my visit. In the second task, the children had been asked to find a suitable patch of grass to cover with a brick or other object, and discuss with someone at home what they thought might happen.

Class D (years five and six), Thursday 7th May 2009, Friction in sport (see appendix 2b, Task 2): In this discussion, the children reviewed the discussions they had had at home about friction in sport, when it can be useful and when it is important for sportsmen and women to try to reduce friction.

In both classes, Mrs J asked the children to indicate, by putting up their hands, whether they had done the homework and talked to someone at home about it. In class C, fourteen of the twenty-four children indicated they had done the covering the grass homework, and ten of those had talked to someone at home about it (some reported that they had not been allowed to put anything on the lawn); Mrs J reported that this was much better than the previous week, when every child in the class had taken home the beans, but only a few children had remembered to discuss it with someone at home. In class D, fifteen of the sixteen year five children reported having done the homework; in a similar way to class C, Mrs J commented that this was much better than the previous week.

I noted in my research journal: *the small number of children who talked to parents in week one significantly improved in week two – it might take a little while to get into a new homework habit.*

This suggests that both classes were taking a little while to get used to the new approach to homework.

Another habit that the year five children, in particular, seemed to find difficult to break was that of writing down; my observation notes record: *the teacher noted that many children wanted to write things down on the back of the sheet,* and I noticed several referring to these notes in the class discussions; it occurred to me at the time that there might have been two plausible explanations for this. Firstly, the children had been receiving formal homework for a few years and simply found it hard to break the habit of writing things down. More likely, I feel, is that the children knew they would be called upon in class to join in a class discussion on the issues discussed and possibly 'report' on what ideas they generated, and wanted to have the security of a few prompts to remind them of some of the main points. (This issue is explored further in chapter eight: interview with the science co-ordinator.) A third possible explanation is that the children were worried about proving they had done the homework, and words on a page would help. At first, I was worried that this all was not quite in the spirit of pencil-free homework, but I consoled myself with the fact that the children had only written what they wanted to write, and had not been constrained by boxes or lines to be filled in.

Class D: some of the children had had some good conversations at home about friction in sport; several talked about the need to reduce friction in swimming and cycling, and gave examples of how sportsmen and women achieve this by, for example, wearing streamlined clothes and crouching low over the handlebars of their bikes. One boy, who had talked to his mum's friend about the homework, referred to the design of racing cars which are low and streamlined to reduce air resistance; similarly, one girl reported talking to her dad about the special cycle helmets racers use in Olympics which were designed to reduce air resistance. One boy reported talking to his mum about how studs can increase the friction in field sports. It is impossible for me to make claims about the learning that resulted from these discussions, but I can claim that the children who engaged in discussions at home

did the kinds of things that we know reinforce learning, such as sharing ideas and hearing different viewpoints, and that some of the discussions were obviously very positive and, even, enjoyable; the opportunity to feedback and discuss in class provided further opportunity for reinforcement of knowledge.

One other significant moment to arise in this brief observation was the strong contribution made by one boy who had obviously done quite a bit of thinking and talking, and writing, about the topic; Mrs J congratulated him on his good efforts and said to me, 'this was a boy who wasn't going to do any homework, Mr Forster'. (This incident is explored in more depth in chapter eight: interview with the science co-ordinator.)

Class C: all the children had taken home a bean seed, and the children reported several discussions with parents at home about how they were growing and how they could encourage the growth. Three boys had found that their beans had not germinated, and had discussed with their parents why this might be; one had thought they had not given the bean enough water, one thought that perhaps they had given it too much water. The third said that his parents had suggested that not all seeds do grow, so maybe this one was just one that 'won't grow at all'; this was an unexpected comment, but a good addition to the children's thinking about the conditions for germination and growth. When asked if there was anything that had surprised them about the beans, one girl said that she had been surprised at how long it took to 'get going' and a boy said he had only expected to see upwards growth, and the appearance of roots had surprised him.

Class C: the children discussed the second task, in which they had been asked to cover a small patch of grass with a brick or other object and make a prediction about what might happen if it was left for a week. Several children predicted that the grass would die; when asked how they would know this, one boy, who had already said he had not been allowed to cover the grass, suggested that you would know because it 'would go white'. One boy reported that his mum thought they might find some bugs under the object as well as the grass going yellow.

6.4 Summary of research findings for chapter

From my observation notes, the following issues emerged:

- In both classes, there was evidence that pencil-free homework took a little getting used to
- In both classes, the numbers of children who engaged in the homework each week was increasing
- In class D, several children found it hard to break the habit of writing down their thinking
- In class C, some children had been surprised by some of the findings from the tasks
- In both classes, some of the children had some good discussions at home that were likely to have extended their thinking and understanding
- In class D, there was evidence that some children were having discussions about the homework with adults beyond the family group
- In both classes, children who had been unable, for whatever reason, to do either of the tasks, still joined in the group and class discussions
- In class D, one child who had said he was not going to do any homework appeared to have worked hard on the tasks and had plenty to contribute to the discussions (the possible reasons for this will be discussed more fully in chapter eight)
- Methodological note: as a source of data, the observations of these discussions were under-exploited

6.5 Conclusions for chapter

These two brief observations gave me a good insight into some of the discussions that the pencil-free homework tasks were promoting both at and beyond the home, and some of these had clearly been relevant to the children's learning, and some appeared to have added to the children's understanding, for example the idea that some seeds would not germinate; this supports a central aspect of the constructivist theory, that purposeful talk can support scientific learning (Naylor and Keogh, 2000, Harlen and Qualter, 2004). Some children found some results surprising; in Piagetian terms, the children experienced 'disequilibrium', and had to accommodate

new evidence into their thinking (Piaget 1971), for example, the surprising appearance of roots identified on the previous page.

The discussions in class provided opportunities for all children to learn from the homework, regardless of whether they had had first-hand experience or not; this was later confirmed again in a conversation with one of the parents who was also a teaching assistant in the school: *'there are children that don't get the help and support at home, and we know that, but this always sparks a discussion the next lesson'*.

The children seemed to find the transition to 'pencil-free' homework challenging in some ways. The science teacher had found that the number of children engaging with the tasks increased each week, and, in our later interview (see chapter eight), confirmed that this trend continued; it is possible that the children were, initially, unsure whether they had actually 'done' the homework, since there was no easily definable way of judging when the task had been completed. Some children found it hard to give up writing, even though there was no requirement to do so with the pencil-free tasks; again, this may have related to the need to feel that some evidence was required to demonstrate that the homework had been 'done', or the fact that the children wanted to be prepared for answering questions in the class discussion following the homework.

From a methodological point of view, attendance at these feedback sessions was both a great and a wasted opportunity; I am very glad that I took the opportunity to observe the discussions, and the evidence gathered has provided a useful insight into the children's learning and the impact of the pencil-free homework. On the other hand, having taken the opportunity, and having reflected on the evidence gathered, I can see that it would have been a much richer source of evidence than I had imagined in advance, and it could have been exploited more fully with better preparation, a more specific focus and attendance at more than just one session per class. The reality is that I only just had enough time in my diary to get in to school for these short slots, but if I had realised the potential value earlier, perhaps I could have found enough time to attend two more times, with specific foci and better note taking preparation, perhaps by writing again to parents to inform them that I hoped to audio record the discussions. These observations also raised questions about how

best to organise the class follow-up discussions and further observations may have provided opportunities for exploring the potential of a variety of approaches to enabling children to share their thoughts.

In this chapter I have provided an insight into the stage of the project in which the school began utilising pencil-free science homework tasks, and reviewed the findings from observations of the two classes during follow-up discussions on homework tasks, which showed that, after a slow start, the children engaged in increasing numbers with the learning-focused activity at home, and were able to follow these up in discussions in class. In the next chapter I will provide a description of the next stage of the project, in which I interviewed, again, most of the children and parents I had interviewed earlier, as described in chapter five, to explore their experiences and perceptions of the trial of pencil-free science homework tasks.

Chapter Seven

The research, findings and discussion: second round of interviews with children and parents, reviewing pencil-free homework

... if you do your homework you learn more stuff ....

The aim of this chapter is to present an honest account of the next stage of the research, in which follow-up interviews were conducted with five children and their parents. The main findings of these interviews will be synthesised and summarised.

7.1 Introduction

At the end of the half-term of pencil-free homework tasks, I invited all of the children and their parents whom I had interviewed at the beginning of the project to come to have another discussion with me, to review how they had got on with the pencil-free homework. I was able to arrange interviews with five out of the six child-parent pairs; of these, one child (Child D4) was in year six and had not, therefore, undertaken any of the tasks; however, I was keen to include him and his mother in the second round of interviews as he was a very perceptive child (as seen in chapter five) and I guessed that he would have gathered some impressions of the new approaches to homework through observing the discussions in class and by talking with some of his year five classmates.

In these discussions, I was keen to explore how the children and parents had got on with the pencil-free activities, whether there seemed to be any positive or negative impact on learning, and what they thought the advantages and disadvantages might be.

In reviewing the evidence, I will use the same broad themes of 'Learning' and 'Relationships', as in chapter five, which have arisen from the data as a result of the analysis, guided by the research questions, and considered with reference to the constructivist theory of learning.

Whilst considering the general themes, I will make reference to some of the comments made by individual children and their parents in the first round of interviews, as this will enable some tentative comparisons to be drawn between the families' experiences of 'traditional' homework and pencil-free homework.

7.2 Part one: learning

Within this section, the main themes to emerge from the data are: children's motivation, homework preferences, parents' learning about their children's learning, learning beyond the homework tasks and assessment.

7.2.1 Children's motivation

Motivation is an important factor in all learning and demotivation can have a negative impact on children's long-term enthusiasm for learning (Alexander 2010). It was an important aspiration for the project that the children should be more motivated to engage in the innovative tasks than they were with some of the traditional approaches.

Children's motivation to engage with the pencil-free homework was varied, as I shall show in this section. However, the general picture was one in which most children's motivation levels were higher with the new approaches, some very markedly so, and some found that their motivation levels remained relatively unchanged (at a very low level).

One of the most compelling statements of the project looks like one of the most mundane, and came from Child D3, when asked how he had got on with the pencil-free homework: *'Fine. They were quite easy and they were really fun to do'*. This apparently bland comment came from the child who in the initial interviews demonstrated no enthusiasm at all for homework, who did it only under duress, and for whom homework mostly had negative associations (see page 73). One indicator of increased motivation in this child, and some of the other children, was a reduction in the level of reminding, nagging or cajoling they required to get started on the homework, or the stage in the week in which they voluntarily got the work out of the bag:

Parent D3: *But I have to say it wasn't left until Wednesday evening, which is a good thing. It usually came out over the weekend, you know, so that was quite good because it is usually a last thing, isn't it, homework, dear? ... He actually seemed quite keen to do it. It was a case of actually him bringing it to us rather than me saying 'Where's your homework? Have you done it? Go and get your homework.*

Parent C2: *He was keen because I had it straightaway. He was like 'I've got my science homework'.*

While most children found that their motivation levels were higher with the pencil-free homework, this seemed not to be the case for all. While Child C1 reported that he did the homework reasonably early in the homework week, his dad suggested that he was not highly motivated to discuss the tasks in any depth:

Parent C1: *But according to mum it was hard work ... Yes, hard work for her to get him to get the communication going on what the idea of what was going on was. I suspect because it's after school stuff ... mum said to me that it is hard work, getting the interaction working. You almost find yourself that you end up doing it yourself and he's just wandered off to do something else now.*

However, in the interview, this child demonstrated that he knew the scientific concepts which were the focus for these discussions, so it is possible that he only needed a minimal discussion to enable him to understand the work and make connections with previous knowledge.

7.2.2 Homework preferences

In class C, the two tasks most often referred to in relation to interesting discussions at home were the task on germinating a bean seed (see appendix 1a) and the task relating to plants needing light to grow (see appendices 1b and 1c).

In class D, the two tasks most often cited as the favourite tasks, and those which seemed to generate the most interesting discussions at home, were the task on Earth, Sun and Moon (see appendix 2a) and the task on friction in sport (see appendix 2b).

These tasks might be seen as the most learner-oriented as they were either active (Harlen and Qualter 2004) or relevant to the children's lives or interests (Wood 1988). In looking at the order in which the tasks were set, it is possible that the children preferred these tasks as they were the first few of the trial and the novelty may have made them more enjoyable; however, it is equally likely that Mrs J chose to provide the children first with those tasks that she believed would be the most interesting and engaging.

7.2.3 Parents' learning about their children's learning

One of the key aspects of learning theory which is relevant to this study is the application of the Vygotskian notion of the zone of proximal development (sometimes referred to as the ZPD), which is considered to be the gap between that which a child can do themselves and what they can achieve with support from and interaction with an adult, or more-able other (Vygotsky 1962). In order to operate within the zone of proximal development it is important for the adult to learn about the child's learning; in this study, it was an important hoped-for outcome that the parents would become more aware of their children's learning and, therefore, be able to engage more effectively with them within the zone of proximal development.

Most of the parents thought that the new approaches to homework had enabled them to gain an insight into their children's learning, and some of these appeared to suggest that the new homework gave more of an insight than traditional homework tasks might have done.

> Parent D3: *I did. I certainly... even being part of the school, I still don't always know what's going on. Like I said before, it is like getting blood out of a stone sometimes, so it did give you quite an insight into what they were actually doing and encouraged him to talk a bit more about what they'd been doing. So, yes, definitely I learnt more, certainly.*

> ---

> Parent D2: *Yes, actually. This one I was, and that actually, I didn't really have to explain that to her at all, she just sort of knew it.*

These positive insights into their children's learning are entirely consistent with Vygotsky's theories of instruction: knowing what your child knows is an important part of working within the ZPD to further develop their knowledge.

7.2.4 Learning beyond the homework task

A significant criticism of traditional homework has been related to the fact that it can potentially encourage a task-oriented rather than a learning-oriented approach (Forster et al, 2010), and this can have negative impacts on attitudes to life-long learning. It was hoped that the new approaches might stimulate some deeper thinking and provide a starting point for further learning, as opposed to each task being an end in itself.

One family reported an episode that demonstrated how the pencil-free homework could provide the stimulus for further discussion within the family, and that enabled the learning to exceed the stated aims for the task, if approached in a positive way within the family:

> Child D3: *With that one we named loads of different sports that had to have friction.*

> Parent D3: *Yes, that was quite good. That caused a bit of controversy in the house, didn't it?*

> Researcher: *Did it? What was that then?*

> Parent D3: *Just as to where the friction would come in and not, and why... it was the bike run, wasn't it, with the helmets and everything ...Yes. It was quite good. You don't like it, do you, when...*

> Child D3: *No.*

> Parent D3: *He thinks we're arguing. That's all part of debating, wasn't it, which was good because that gave us the opportunity to talk about debating as well.*

Out of all the families, D3 seemed to gain the most from engaging with the pencil-free homework tasks, and this is reflected in so many of their comments, and this example demonstrates how much they were able to derive from them. This partly reflects the type of people in the family, as the parents clearly had a commitment to

their children's learning, but it also reflects how challenging they had found previous homework, and the extent to which they saw these innovative tasks as being different and more valuable than their previous experiences.

Another, more subtle example, demonstrates how the tasks provided similar opportunities for children to 'think beyond'. In the task on Earth, Sun and Moon, Child D2 reported discussing the fact that an aunt lives in New Zealand, and this added to the discussion about time-zones and the Earth's rotation. In terms of constructivist learning theory (Selley 1999), this is a good example of a child building a mental, working model of a scientific concept and being able to add information into the model to strengthen it.

7.2.5 Assessment

The pencil-free nature of the homework tasks led to more subtle understandings of the impact of assessment on learning, which meant that there were very few comments from children or parents in relation to this issue.

As I will show in the following chapter, Mrs J, the science teacher, was able to use the follow-up feedback sessions as a way of gauging the children's understanding and making adjustments to her teaching as a result. However, the children were not always fully aware of this process, as shown by this response from Child D2 when asked about the feedback given during the class discussions:

> Researcher: *If somebody said an idea and Mrs J thought, ah, that isn't quite right, did she say something about it?*

> Child D2: *Erm, I don't really know ... I think so. I'm not really sure, but I think so.*

The other aspect that was commented on was the challenge teachers faced in trying to assess each child's understanding in such a short time:

> Parent C1: *That's the thing, if it's a discussion on a topic, if it's just that one, is it only fifteen minutes? Because that's not going to be enough to get round everybody. I could imagine if you're trying to find out what each individual child thinks it's just not feasible.*

This is a sound point, and identifies one of the challenges inherent with all forms of assessment: to do it well takes time. Marking thirty sheets of homework, or classwork, in any meaningful manner could not be done in fifteen minutes, and it is important, therefore, to maintain a degree of perspective on how much time teachers should spend on assessment in relation to the amount of time devoted to teaching and preparation for teaching.

However, this raises another key issue in relation to constructivist teaching and learning. Many novice teachers misinterpret the purpose of elicitation as an attempt to understand each child's thinking on a particular scientific issue; however, elicitation is really about each child developing their understanding of their own thinking, and beginning the process of noting that there may be other possible ideas. The teacher should be alert to gather as many of these as possible in the assessment time available, but the main benefit is for the child.

7.2.6 Summary of research findings for chapter

- One parent reported it had been 'hard work' having discussions with their child; they did not want to engage after a day at school
- Two families found that the homework tasks provided opportunities for learning 'beyond' the stated aims
- Two parents reported finding out about their children's learning through talking with them about the tasks
- The tasks that promoted the most interesting and engaging discussions within the families were typically those that involved an activity (e.g. modelling day and night) or involved discussing lots of different ideas on an interesting theme (e.g. thinking about friction in sport)
- One parent questioned whether a fifteen minute discussion in class could be effective as an assessment exercise

7.2.7 Conclusions for sub-chapter

In the concluding section for this sub-chapter, I will outline the main themes to emerge from the evidence gathered and analysed from the second round of interviews with the children and their parents.

Most families found that the children were more motivated to engage with the pencil-free homework tasks than with previous homework; this is consistent with the expectations of the constructivist learning theory (Selley 1999) as the children were able to engage more actively with the tasks and raise their own questions about the scientific concepts. The families reported engaging most fully with the tasks that involved an active or modelling task and those that were open-ended and invited them to think of a variety of examples in relation to an interesting topic.

Two of the families reported that the learning conversations initiated by the pencil-free homework tasks extended beyond the aims identified on the sheet. Again, this is consistent with the expectations of the constructivist approach to learning, in which learning is not viewed as a task-oriented or box-ticking process, but as a meaningful and developmental journey with endless possible and valuable divergent paths (Holt, 1982).

Similarly, two families suggested that the tasks had enabled them to gain an insight into their children's learning. This is an important aspect of parents becoming effective partners in their children's learning and supporting them through working with them in the Zone of Proximal Development (Vygotsky 1962).

In this sub-chapter, I have presented evidence that suggests that parents and children were able to engage in more learning-related activity with the homework than seemed apparent in the first round of interviews, and that motivation was generally, though not universally, higher. In the next sub-chapter I will explore the perceptions of children and parents on the impact of the pencil-free homework on relationships.

7.3 Part two: relationships

Within this section, the main themes to emerge from the data are: arguments and stress, parental support and involvement, teacher/pupil relationships, time and other pressures and advantages and limitations of pencil-free homework.

7.3.1 Arguments and stress

In chapter five it was demonstrated that most of the children and their parents experienced some levels of stress in relation to homework, and that this often included some degree of arguing, either about getting the homework tasks 'done' or about how to do the tasks. While it can be argued that some stress is always going to be involved in any kind of learning, the kinds of stress described seem to be more likely to detract from rather than add to a learning experience.

The pencil-free homework tasks were designed to reduce these kinds of stress in three ways; firstly, and most importantly, by making the tasks more engaging than traditional writing tasks in order to increase motivation (and therefore reduce nagging), secondly by making the tasks more collaborative in order to reduce the sense of isolation by the child, and, thirdly, by removing the need for anything to be handed in, in order to reduce the stress about submitting, or not submitting, homework. Two families reported that there was less stress associated with the pencil-free tasks, one significantly so:

> Researcher: *I think last time we talked about the fact that occasionally there's a tiny bit of stress associated with homework.*

> Child D3: *Yes*

> Parent D3: *Yes. Definitely not with these. He actually seemed quite keen to*
do it.

> ---

> Researcher: *And what about you and your mum; did you fall out at all over*
this?

> Child C1: *No*

However, not all reported the process to be entirely stress-free: in the case of family D3, Child D3 was slightly unsettled when his parents entered a debate around one of the homework tasks; although Child D3 was perplexed, Parent D3 suggested the episode had actually been beneficial to their learning:

Parent D3: *Yes. It was quite good. You don't like it, do you, when...*

Child D3: *No.*

Parent D3: *He thinks we're arguing. That's all part of debating, wasn't it, which was good because that gave us the opportunity to talk about debating as well.*

In the case of family D2, Child D2 reported feeling a bit stressed when she was not sure what she had to do with the task related to friction in sport, but her mum suggested that even this demonstrated another advantage of the pencil-free approach:

Researcher: *This kind of homework, for you, didn't sound as though it caused very much stress either.*

Child D2: *I don't know, I got a bit ...*

Researcher: *Did you?*

Child D2: Yes.

Researcher: *Because you didn't understand the task?*

Parent D2: *Because we were all talking about it, though, it wasn't as if she was sat there thinking, 'can't do it, can't do it, can't do it', you know.*

I suspect that one of the reasons that Child D2 found that she did not understand the task and, therefore, found the situation slightly stressful was because there were no boxes to fill in on the page, and, therefore, a certain ambiguity about how you would know if you had 'done' the task adequately or not. Bearing in mind this was, in the first round of interviews, the most 'homework compliant' child from of all those interviewed, she probably found some security in knowing exactly how to complete the traditional homework tasks, which she did with little fuss, and this raises questions about the extent to which the pencil-free homework could meet the

learning needs of all children. For example, children on the autistic spectrum may not find these as 'safe' and easy to access.

As shall be seen below in the section on time pressures, family C1 found the process to be very similarly demanding to other homework.

7.3.2 Parental support and involvement

Three families reported that there was something positive about getting involved with their children's homework in a more meaningful way, beyond just ensuring that they did it, and two found that the entire family got involved in a discussion about the learning. For example:

> Parent D3: *It was quite nice, actually, because instead of Child D3 going off and doing his homework we did all kind of get involved in it, especially the one with the sun and the moon with your father trying to eat the apple didn't help.*

In the initial interviews, Parent D2 had expressed a hope that the pencil-free tasks might enable her to get more involved in her daughter's homework; in this interview she provided a lovely example of how the new tasks had enabled her to do so, without making a huge demand on her time:

> Parent D2 (re task in appendix 2a): *We discussed that one a fair bit, didn't we? We did that, Sibling D2 was having a go at that one as well.*
>
> Researcher: *Okay, and Sibling D2 is older?*
>
> Child D2: Yes. *She's twelve.*
>
> Researcher: *So she's at secondary school, okay. Tell me about this one. What did you do with this one?*
>
> Child D2: *Erm, just say what sports friction is and, I can't remember.*
>
> Parent D2: *No, I think we were all having a bit of input with that one ...*
>
> Child D2: *Whilst we were making the tea.*

Parent D2: *It was, yes. Everybody was just shouting out, such and such, or whatever. Daddy came home in the middle of it as well, didn't he? ... Yes, it was good, actually, because, as I say, I was cooking and you can just shout through, you haven't actually got to sit there, writing things down. And Daddy got involved as well, didn't he?*

It is worth noting, here, that not only was the homework undertaken in a flexible way while the family meal was being prepared, but also that every member of the family got involved in the discussions around the role of friction in sport (see appendix 2b for task).

7.3.3 Teacher/pupil relationships

In chapters four and five it was shown that homework could have a detrimental impact on the teacher/pupil relationships with school. In these second interviews, I tried to ascertain whether any tensions had arisen over the pencil-free homework by asking about what happened if someone had not done their homework, as this seemed to be the usual site of tension between teachers and pupils on this issue. As there is nothing to hand in with pencil-free homework, it was perhaps harder for the children to be aware of when some of their peers had not done the tasks; in general they gave the impression that the teacher did not make too big a deal of whether the children had done the tasks or not, possibly because the teacher could not know for sure, either, whether it had been done.

The only comment made on this was from Child D4, who reported the teacher said, *'Never mind, just try and do it next time'*, when someone confessed to not having done the homework.

The importance of teacher/pupil relationships in relation to learning theory should never be underestimated, so the almost nil response on this issue could well be seen as a very positive step forward compared to the reports from children and teachers related to traditional homework.

7.3.4 Time and other pressures

Most families reported that the new tasks enabled a more flexible approach to managing the time demands made by homework: e.g. Parent D2: *Yes, it was good,*

actually, because, as I say, I was cooking and you can just shout through, you haven't actually got to sit there, writing things down.

However, some found that the demands on time were just as challenging with pencil-free homework as they had been with traditional homework.

> Parent C1: *Yes, I think so. In some respects, because it's at the end of the day... I mean normally with his homework, like with his reading, you can get him to do some reading in the evening, but sometimes it's easier in the mornings when he's alert and aware. But by the time you get to Thursday/Friday, it's just ... because he's done too much throughout the week with all the other activities they do.*

Parent C1 had earlier reported that engaging Child C1 in any homework was a challenge; here he found that Child C1 was no more keen to apply himself to pencil-free homework.

7.3.5 Advantages and limitations of pencil-free homework tasks

As a way of trying to summarise some of the key ideas in our discussions, I asked all the children and parents what they thought the advantages and disadvantages might be of pencil-free homework, based both on their experiences of using them and their perceptions of how they could be utilised in the future.

Every family identified some benefits in the tasks being based around discussion rather than writing. In some cases, this related to the convenience of talking compared to writing (Child D4: *'People don't like having to write stuff down. They much prefer to talk about it'*), whereas in others it was more focused on the learning benefits associated with talk:

> Parent D4: *I think it's always nice for a child to discuss it. Not because they can be influenced but it almost helps them to understand what they're thinking.*

> Child D4: *Because you discuss it and sometimes you remember things that you discuss ... if you tell someone then they can say the next day, when you told me, do you remember what that was. But then if you write it down, most of the time I think your homework that you write down and give in doesn't really go anywhere.*

Parent C1: *And I think that's probably better because I also think sometimes that maybe the kids in the classroom do listen to the other children as they are talking because they're saying it as they would say it or similar, rather than as adults we tend to talk a completely different language.*

Several identified the benefits of parents getting, and feeling, more involved in their children's learning, the fact that everyone in the family could get involved, and the learning benefits associated with talking about learning. Child D2: *You actually talk about it and then everyone knows what you're doing and what stage you're at.* Parent D2: *So you can guide as they go, that's better.* Again, it is possible to see the benefits of parents and children working collaboratively within the ZPD.

The flexibility of the tasks was identified as another advantage, with one parent identifying the fact that the tasks could often be done anywhere (Parent D2: *I think it's very good because you can do it whenever. You can do it in the car if you want to, can't you?*) and children noting they could do as much as they like, and learning could go beyond the stated aims.

Most, but not all, families identified that enjoyment and motivation was higher with the pencil-free tasks: *It was much better. I enjoyed them. You enjoyed them.* (Parent D3). *He did them and he enjoyed them a lot more than he does normal homework* (Parent C2).

One parent, C1, identified the benefits for the teachers when trying to mark the children's homework and provide some feedback:

> *But in terms of the point of view of the teachers, whether that's easier for them once they come in and say 'Right, that's your homework, now let's have a discussion on it,' if I was a teacher that would be more enjoyable than sitting there going 'I'm going to have to go through thirty...' That's got to be so laborious it's unreal, so I feel for the teachers in that respect because when I finish work myself I don't want to go home and do more.*

One parent, D3, identified the fact that the pencil-free homework tasks were potentially more inclusive, as they enabled all children to have opportunities to engage, even if they were not well supported with homework at home:

I thought these were quite good because there are children that don't get the help and support at home, and we know that, but this always sparks a discussion the next lesson so they didn't actually miss out. Okay, they didn't discuss it with their family but they were still able to be part of the discussion in school and share their findings or ideas in the class.

When it came to the disadvantages, the children mostly focused on the fact that it was easy for children to 'get away' with not doing their homework if there was nothing to hand in, but also recognised that, in theory, handing in written homework provides potentially better opportunities for teachers to provide useful feedback on learning:

Child D4: *Some people just don't bother doing it and then, say they do do it and just come up with a few facts ... they don't do it but then they just say what they already know without going any further.*

Child D2: *Well, erm, you didn't really have to talk to it, but we did on some. Because you could just look at it and just say. With that one, because quite a few people would know that, so you wouldn't really have to do that one ... And some people were writing things down, so it's not really pencil free.*

...

Child D2: *If, with writing down homework you have to actually give it in and they know that you do it and that you can look over it and see if you got it right.*

Parents also identified this, but did not see it as such a major problem, if there were benefits for those that engaged with the homework.

Parent D3: *There is the case that they don't have to do it and can just sit in class and think off the top of their head. But no, for our home it's good, much better.*

Parent C1, having identified, above, that a discussion could be a more useful way to follow up a homework task than laboriously marking thirty sheets, also noted that a brief discussion would not provide sufficient time for the teacher to assess every child's understanding.

Yes. That's the thing, if it's a discussion on a topic, if it's just that one, is it only fifteen minutes? Because that's not going to be enough to get round everybody. I could imagine if you're trying to find out what each individual child thinks it's just not feasible.

I will conclude this section with a comment by Parent C1, who was the most homework-sceptic of all the parents I interviewed, and was perhaps least likely to be persuaded to see the benefits of any kind of homework task.

Parent C1: *If you can abolish homework full stop and just have this, and then better that by far because what does homework achieve at the end of the day? Does it really achieve what they expect it to achieve? No chance.*

7.3.6 Summary of research findings for chapter

- Two families reported the pencil-free homework experience was lower-stress than previous homework, and one family found it significantly so

- One child found it slightly stressful when she was unsure of what to do; her parent suggested that they were able to discuss it which was less stressful for her than struggling on her own

- Three families reported positive feelings about doing the tasks together

- Two families reported that every member of the family had got involved in the discussions

- Two of the families reported finding that the pencil-free tasks were easier to manage in terms of pressures on time, as they could be done more flexibly; one family reported doing a task while mum cooked the tea

- One family found that the demands on time were just as great as with previous homework tasks, and that their child was reluctant to engage in discussions; parent/child relationships were not enhanced

- Children did not report any nagging by the teacher about non-completion of homework

- Children and parents identified a range of potential advantages to the use of pencil-free homework; the disadvantages identified largely related to the fact that there was no way of checking who had done the homework

7.3.7 Conclusions for chapter

In general, the families found that the pencil-free homework tasks were less stressful than their previous experiences of traditional homework; this was shown through the absence of arguments over getting the tasks 'done' and in the reduction in stress associated with there being nothing to hand in. However, some stress was experienced by some children; in one case this was in relation to struggling to understand the task, and, in another, the challenge for one parent and child of having a mentally demanding conversation about the homework after a hard day at school.

Some families found that they appreciated the flexibility of the homework, in terms of when it could be completed, freed from the need for a table and enough time to write neatly. Similarly, some families reported that, because the tasks involved doing and talking, every member of the family was able to get involved with some aspects of the learning discussions. Vygotsky would have approved.

When asked what the potential advantages and disadvantages might be to the use of pencil-free homework tasks, parents and children offered a range of responses. The suggested advantages are well presented and argued through this thesis. However, the suggested disadvantages nearly all related to the possibility that some children would choose not to complete the homework tasks if there was nothing to hand in. This was suggested as a disadvantage even if most children already knew the content of the task:

> Child D2: *With that one, because quite a few people would know that, so you wouldn't really have to do that one.*

This suggests that it is hard to break away from the dominant yet tacit idea that the purpose of doing homework is to hand it in; it seems it would be an alien idea that it might be acceptable not to do a homework task if you already know the answers or are familiar with the content, even though completing the task would not add to any learning.

Other suggested disadvantages of pencil-free homework related to the limited time available for assessment and feedback, as already discussed in chapter four.

In this chapter, I have provided a synthesis and summary of the findings in relation to the views of children and their parents of the pencil-free homework. The innovative approach to homework was not universally 'successful', as some children and parents found it as challenging as previous experiences of homework. However, in some cases the children were more motivated, families were less stressed, parents were able to engage more positively with their children's learning. In the next chapter, I will present the findings of the next stage of the research, in which I interviewed the science teacher to explore her experiences of utilising the new approach.

Chapter Eight

The research, findings and discussion: interview with science co-ordinator

I've never seen him do any homework before.

The aim of this chapter is to provide an account of the next stage of the research project, in which the science teacher was interviewed about the project.

8.1 Mrs J, the science teacher

At the end of the half-term during which the pencil-free homework tasks had been trialled, I met with the science teacher, Mrs J, to discuss her perceptions of the project and its impact on the children's learning and enthusiasm for learning, and how she thought it might best be developed.

In reviewing the transcript of the interview, the following themes were seen to be significant: the importance of integration of the homework into the planned learning sequence, the potential benefits for teaching and learning, 'getting used' to the demands of pencil-free homework, and a success story.

8.2 The importance of integration of the homework into the planned learning sequence

Mrs J had been able to trial the homework tasks in two slightly different ways with the two classes. In class C she had selected tasks that would fit in with the scheme of work she was following for the half-term, whereas with class D she had chosen a range of tasks on a range of topics, to revisit scientific concepts and ideas covered earlier in the academic year. In reviewing the project, she felt strongly that the first approach had been the most successful, although it had required more commitment on her part: '*I think it was great if you did it as part of, included in your medium term planning. I don't think it works as an add-on*'. An important aspect that Mrs J identified here was that as the learning opportunities had to be built into and integrated into the sequence of class lessons, the teacher had to give careful consideration to this, and she felt that it even took more commitment to run the

pencil-free homework in this way than it would to mark thirty sheets of written work: '*I think it's very easy to just chkchkchkchkch* [mimes marking quickly] *but if you're actually doing a proper lesson about it, including it in a proper lesson, I think yes, it takes more effort and commitment*'. As will be seen in the following section, one of the benefits of incorporating the homework into the overall teaching and learning plan was that it made potentially good use of teaching and learning time.

8.3 The potential benefits for teaching and learning

One potential advantage of the homework Mrs J identified was that it could help the teacher make more focused use of lesson time:

> *Well certainly, just thinking of the Helping Plants Grow Well topic in Year 3 and 4, I didn't cover the requirement for light for plants to grow well, or not so well. That was good because they covered it in their homework and we could talk about and bring it out further in lessons. So that gave me more lesson time for other things, actually. Because that would have been a whole lesson, that one.*

Mrs J was already committed to using discussion to reinforce learning in her science lessons, and found that the pencil-free homework provided good opportunities for this and the feedback discussions at the beginning of each lesson enabled her to understand some of the children's ideas and identify any alternative conceptions. One of the tasks (see appendix 1b) invited the children to cover a small patch of grass in their garden and discuss with someone at home both a prediction of what they thought would happen and a review of what did happen:

> *So it's very interesting the things that they said. Interesting what parents said as well. I mean, for example, thinking back, it hadn't even crossed my mind that there would be all sorts of little creatures going under the covering. ... And if you get the whole thing going you can make the children feel that they really have ownership of it, because they're telling me things I don't know.*

This is a significant point; as long ago as the 1970s Postman and Weingartner (1971) identified the fact that most talk that goes on in school is teacher-dominated, and Wood (1988) confirms that children very rarely have the opportunity to express their own opinions, raise their own questions or challenge the views expressed by the teacher. They identified that most teachers only ever ask questions they already

know the answer to, which seems an odd use of a question. In Mrs J's lessons, she wanted the children to take ownership of their learning, and discuss things the teacher did not already know, and she found that the pencil-free homework gave her some opportunities to enable her to do so.

One of the main criticisms of any kind of homework is the inequity inherent in asking parents to get involved, as parents with 'middle class' values are more likely to want to be supportive of their children's learning, and know how to do so (Bloom, 2009). One of the benefits identified by Mrs J of the pencil-free tasks is that they were more inclusive of those not so well supported at home, as the children could still join in with the class discussions:

> *But I think the children that didn't do it, for whatever reason, and they're often the usual suspects, they still did benefit from it to an extent because they listened to ... I had them all talking together anyway. They're not getting as much from it as if they had done it but at least they're joining in.*

Mrs J did have one criticism of the homework tasks, which related, not to the principle *per se*, but to some of the language used:

> *My only criticism of it really, Colin, was just some of the language needed a lot of ... and I'm wondering about some of our parents as well. Not so much the science words, they're okay with those if I remind them, but just a few expressions, like, "Consider the importance of ...". I kind of found myself re-wording it for them when we read it through. I mean most, but puzzle, puzzle, that's a word people don't know. "Did you find this puzzling?" What does that mean?*

This is an important point as it is important there is clear communication, so that interaction in the home can be focused on the task itself rather than on working out what the task means or what is required.

8.4 Getting used to the demands of pencil-free homework

As already noted in chapter six, Mrs J noted that the number of children, from both classes, who reported having undertaken the tasks were lower in the first week than she had hoped, but that the numbers improved in the second and third weeks. She suggested that this was probably because the tasks were quite different to what the

children were used to, and they felt unsure about how they were supposed to 'do' them.

> I think they thought it was going to be harder than it was. Because a lot of them do find homework hard and sometimes it's not appropriate homework, I don't think. In fact, most homework isn't appropriate. So they find it hard and I think they can't quite believe that all they have to do is show this sheet to somebody and talk to them about it. And I think once they'd got that under their belts they were a bit more sort of relaxed about it.

It is also possible that, when asked whether they had done the homework, the children just were not sure ... after all, if there are no blank spaces and nothing to hand in, how can you know if you have 'done it' or not?

As shown by many participants throughout this project, Mrs J revealed her mixed feelings about homework:

> I think I would certainly use those homeworks in science but I'm not overly keen on homework. I think as long as people are doing spellings, tables and reading, that's really all they need to be doing. But if science homework were to be required, which often it is by parents or Head, or whatever, I would be much more inclined to do that.

Far from being converted to pencil-free science homework as the saviour of education, she would still prefer not to set any homework beyond spellings, tables and reading; this correlates well with the feelings of the other teachers within the school (see page 65, chapter four, summary of findings).

8.5 A 'success' story

I had just about completed the interview with Mrs J, when I referred again to the pencil-free nature of the homework tasks, and this prompted her to relay the following story, which I have included in its entirety as it a powerful case study within the project, although the conclusions that can be drawn from it are interesting.

> Just one last point on the pencil free. There was one little boy, Year 5, Child AB, who is probably the naughtiest boy in the school. I like him very much. But he loves science, he's very enthusiastic. He's got a very ... he's too cool for school, one of those, Jack the Lad type. And I had explained the homework to them one week, you know, pencil free. We'd gone through it

and talked about it. And I said, so next week, I'll expect to see, bla bla bla. And I turned round, and apparently, I didn't see this, but he, it's so silly because he loves science, but he just went [mimes tearing paper in half] ... pretended, didn't actually do it, like that. And of course, immediately, one of the TAs, Mrs S, bla bla bla. So I was really cross, because I'd just gone through this whole, isn't this fun, bla bla bla, and I thought, just get out, get out of the classroom and I'll talk to you later. And we had a talk, and I said, what a shame, because you love science, you're one of the people who would be brilliant at this, etc. For the rest of the four weeks he came in every week with a folder, like this, with a plastic bag, because his mum is quite supportive of him, with the sheet, beautiful condition, with the whole thing written out, pages of it. And he was trying to make up for being silly. I didn't want to dishearten him and say, actually, you didn't have to do that. Instead of having to stand up and remember things, which some of them find quite hard to do, like we all do, he quite liked having it written and to read it out to the class. He liked having those notes. ... I've never seen him do any homework before. ... And he was so pleased with himself at the end of the five weeks because he had done some beautiful work; some pretty strange science ideas, between him and his mother, but that's fine.

I would like to claim that the pencil-free homework had really inspired this child to engage with homework in a way that he had not done before, but I think that would be a rather spurious and self-serving interpretation of the evidence. It is possible that the tasks themselves were interesting and had helped to engage Child AB in discussions with his mother about scientific concepts, but, taking the whole description into account, it is clear that there were other significant factors that contributed to the child applying himself in a new way to the homework.

As already argued, relationships underpin successful learning in all education, and this is particularly important during the primary years; it is clear from Mrs J's comments that she had a good relationship with Child AB. This may not seem apparent from the fact that she obviously barked at him to leave the classroom, but other indicators suggest that they generally worked well together; she told me that she '*liked him very much*' and he was enthusiastic in her lessons. Most importantly was the way in which she followed up his exit from the classroom with a positive chat that reasserted her belief in him and in his potential as a learner, and re-established her high expectations of him. I suggest that it was this that led to Child AB's subsequent attention to the homework tasks.

It is interesting to note that, in wanting to demonstrate his commitment and engagement with the tasks, Child AB produced written work, despite the pencil-free nature of the tasks; perhaps this was the only way to demonstrate in an evidence-based way how hard he had tried.

It is easy to see this as a success story just because a child who did not normally do his homework suddenly starting doing lots; however, since I have already made it clear that I do not share the view that homework is always intrinsically valuable, it is worth exploring whether there were any learning benefits to Child AB apparent through this experience. Beyond making an assumption that, if he engaged with the tasks, which were designed to enhance learning, he had benefited from doing them, there was some evidence that the thinking he had undertaken with his mother had revealed some alternative conceptions (*some pretty strange science ideas, between him and his mother*) which the teacher was then able to address in lessons. Perhaps the bigger gains were related to the child's intrinsic motivation (*'and he was so pleased with himself at the end of the five weeks because he had done some beautiful work'*) and the development of his learning potential through feeling good about his achievements. As previously argued, the affective domain is central to learning, and perhaps this story shows that it is not whether a homework task involves writing or not, but how the child feels about it which is most important.

8.6 Summary of research findings for chapter

- Relationships underpin children's 'success' with homework: one child who had not done homework before engaged very well with the tasks; the reasons for this engagement likely to be more related to the relationship that Mrs J had with the child rather than the pencil-free homework
- The in-class discussions revealed some interesting ideas from children and parents and some alternative conceptions to inform teaching and learning
- Teaching and learning time was adjusted in response to how well the children had done with one task
- Children took some time to get used to the pencil-free homework, with more children 'joining in' each week for the first three weeks
- Children often preferred to write notes on the back of the sheet

- The homework tasks were more effective when used as part of a planned series of learning activities

- The pencil-free tasks were seen as more inclusive, as all children could take part in the class discussions regardless of whether they had been well supported at home

- Reading, spellings and rehearsal of multiplication tables were seen as important as homework tasks (perhaps one of the strongest findings throughout in speaking to the education professionals)

- Even though she could see the benefits of the pencil-free homework approach, the science teacher would still, overall, prefer not to give science homework at all, on the basis that she would prioritise reading, spellings and rehearsal of multiplication tables

8.7 Conclusions for chapter

As identified in chapter five, at least one pupil identified, implicitly, the importance of the teacher / pupil relationship in supporting the children's learning, and this is again shown to be an important issue in this chapter. Positive relationships underpin learning, and the example in this chapter shows that a positive relationship coupled with high expectations can have a significant impact on a child's level of engagement with homework. Constructivist learning theory emphasises the importance of creating a safe learning environment in which the children's learning potential is nurtured, and the teacher and learner share learning experiences (Selley, 1999).

While child AB suddenly found the motivation to establish a new homework habit, many children found it hard to break the old homework habit of writing down their answers and perhaps only felt sure they had done their homework if they had something written down as evidence of having completed the task. Postman and Weingartner (1971, pg. 30) make that point that *'the critical content of any learning experience is the method or process through which the learning occurs ... It is not what you say to people that counts; it is what you have them do'*. These children had already experienced several years in which what you 'do' with homework is write it down and hand it in, so it is understandable that they found it difficult to change this approach.

A key finding in this chapter, that Mrs J would only support homework for readings, spellings and multiplication tables, correlates well with the views expressed by all the teachers interviewed, and suggests that the notion of 'you learn what you do' applies just as much to teachers; despite the fact that all of the teachers did not think homework beyond these 'basics' was valuable, they still set it, because that's what teachers 'do'.

In this chapter, I have provided an overview of the themes and findings to emerge from the interview with the science teacher, Mrs J. While she identified some benefits and potential limitations in the new approach, she was convinced that, on balance, children should only be set homework to reinforce 'the basics'. In the next chapter, I will describe the final stage of the empirical element of this study, the final interview with the headteacher, Mr R, in which we explored the potential impact of the study on future policy and practice in the school.

Chapter Nine

The research, findings and discussion: final interview with Mr R, headteacher

If it isn't worth following it up, is it worth setting?

The aim of this chapter is to provide an account of the final stage of the research project, in which a final interview with the headteacher was undertaken, and the school's own survey into homework was conducted; the key issues to emerge from the data analysis will be presented.

By December 2009, I had undertaken the analysis of data and established some findings based on the evidence, as outlined through this thesis. In January 2010, I met with Mr R, the headteacher for one last interview, to discuss a summary of the findings, and to get his thoughts on the project and whether he thought it might have any impact on the development of homework policy or practice at the school.

This meeting was important in relation to the ethical aspects of the research. Mr R had been generous in agreeing to work with me on the project and very amenable in allowing me regular access to the school for interviews with parents, children and teachers. It was important, therefore, to provide him with a summary of the findings (BERA, 2004) and discuss the emerging issues and thank him for his co-operation and support.

In advance of this meeting, I sent Mr R a summary of my findings from the project to this point, which consisted of the bullet points drawn from each of the preceding chapters in this thesis. This provided the basis for the interview, as we were able to discuss and reflect on some of the notable themes that had emerged from the research.

In reviewing the transcript of the interview, the following themes were seen to be significant to Mr R when considering the summary of findings: the lack of consensus on the purpose of homework, the importance of closing the assessment loop, the diversity of families and levels of support with homework they offer their children. Mr R also outlined his thoughts on the establishment of a homework club in the school

and what he considered to be the next steps for the school in developing a consistent homework policy; he intended to send a survey to parents to ask for their opinions on issues around homework, and kindly agreed to allow me to have a copy for the purposes of this thesis.

9.1 The lack of consensus on the purpose of homework: the 'minefield effect'

I began the interview by asking Mr R what he had found interesting from the summary of findings; the first point that he noted was that there was a variety of views about homework and its purpose:

> *I found it quite interesting that there wasn't necessarily a complete consensus and agreement as to ... you know why we did homework, what the benefits were, and, actually, whether it was worth doing at all, and whether the pencil-less homework was actually better than, you know, doing the more traditional approach.*

Although he found this interesting, it only confirmed the view that he held at the beginning of the project, that homework was something of a 'minefield' because of the diverse range of views that parents, in particular, hold about it, as identified by Hughes and Greenhough (2002a).

9.2 The importance of closing the assessment loop

Mr R noted that assessment came through as a significant element of the findings and he outlined some of the challenges inherent in teachers finding the time to close the assessment loop, and suggested teachers should try to *'do less but try and do it better'*.

He found this point compelling, and perhaps a significant factor in deciding whether a particular homework task was worthwhile at all:

> *.... if it is a written type thing, or even if it is a 'talking about' thing, we've got to realise that if it's worth setting a task then it's worth following it up. If it isn't worth following it up, is it worth setting the task?*

This accords well with research such as that undertaken by Black and Wiliam (1998) and the Assessment Reform Group (2002), considered in chapter three, which emphasises the importance of meaningful assessment as a powerful tool to support learning, and avoids the problem of 'homework for homework's sake' as outlined by Hughes in and interview with Roberts (2009, p. 14). However, this raises questions about the need to communicate effectively with parents, as they may prefer a degree of predictability regarding the expectations about how and when homework is set.

9.3 The diversity of families and levels of support with homework they offer their children

Mr R reflected on the need for parental support for homework, and the particular challenges that this might present in relation to pencil-free tasks:

> *I suppose a lot of it comes down to motivation in the sorts of children that you are working with. Erm, because I love the idea of, you know, Mum or Dad's getting the beans on toast sorted out and they say 'yeah come and sit in the kitchen or whatever... erm... let's talk about this little idea that we've been asked to discuss.' I think that's lovely, you know, fifteen to twenty minutes just talking about stuff is really good, but, er, the fact is in a lot of families they just want to be able to say go and do your homework. 'Haven't you got any homework to do?', 'Well I have Daddy but, you know, I need to sit down and discuss with you why we have night and day'. In some families I'm sure it would work a treat but in others I think it might be more of a challenge.*

This appears to be a non-resolvable aspect of homework; families offer their children varying levels of support, for a variety of reasons. While this seems to pose particular challenges for pencil-free homework, as Mr R points out below, it is actually problematic for all homework in the primary age range, as parental support is vital in making the process meaningful and valuable.

> *I think a lot of families expect the homework to be done without any input from themselves. I think that's quite a big ask at primary school level. And if you then say, well we are going to set tasks that don't need input from home, they are tasks that children can get on without that, they would have to be so simple as to not really pose any level of challenge.*

This point is well made.

9.4 The school homework club

Mr R informed me of a recent development within the school, the establishment of a homework club, set up by the school's recently appointed Newly Qualified Teacher:

I think it's helpful to her and it serves a purpose for herself really, that she has got a bit fed up with 'Have you done your homework?', 'No'. Same old characters who are not getting the support, not getting the push from home to get it done. So she's actually setting up a club, if you like, after school on a Thursday I think, whereby children can go along and do their homework.

The rationale for the club sounds very familiar, and highlights, again, one of the drawbacks of setting traditional homework that has to be handed in to the class teacher. The tensions inherent in this system and the consequent erosion of pupil/teacher relationships emerge once again as key issues. The Newly Qualified Teacher is trying to resolve the problem of 'nagging' children in relation to their non-completion of homework, and the solution seems to be supportive of both children and families; however, Mr R had his reservations:

So we are going to give it go. I'm not entirely comfortable with it but she wanted to do it, and I wanted to be appreciative and supportive so I've said, 'Yes, let's give it a go.' But it's no longer homework, it's just an extension of schoolwork, and there will be a teacher there helping them to do it. ... We've only got like three or four slips in and they are all kids that always do their homework! [Laugh]

9.5 Next steps for the school

On balance, Mr R seemed to have an appreciation of the potential benefits of the pencil-free homework, coupled with a level of attachment to the '*practical benefits of having a more sort of traditional approach*'. Much of this possibly comes down to issues of manageability and, in particular, managing expectations.

Mr R was keen to maintain the momentum created by the project and capitalise on the opportunity to explore the issue further by conducting a survey of the views of the parents on their children's homework as part of a process to develop a revised homework policy for the school.

I think our next step as a school is to sort of say, you know, we've done this project, erm, you know and some views have been gathered, what do you want us to do? You know... and I would like to think that perhaps we could find some middle ground. We wouldn't please everybody as usual .... obviously, I would like to consult with parents and teachers, and the children to a certain extent, and see what, you know, they thought would be the right sort of approach really.

9.6 The school survey of parental views on homework

Shortly after this interview, Mr R sent a brief questionnaire to all parents, and kindly agreed to share both the questionnaire and the results with me (appendix 8); it is worth noting the response rate of approximately thirty-five percent. I was particularly grateful to receive these, as they provided some valuable evidence to triangulate some of my own findings and Mr R was able to ask the parents some questions I could not have asked myself, as an outsider to the school context (see ethical dilemma of page 70). I also suspect that, if a letter from the headteacher only generates a thirty-five percent response rate, a questionnaire from a university lecturer might yield even less impressive results.

On the question related specifically to 'pencil-free' homework tasks, the summary of results is shown below (see appendix 8 for full results):

What are your views on homework tasks that only require discussion, rather than writing things down?

A Summary of "Comments" (Question 2)

Generally a positive view was expressed regarding the setting of "pencil less" homework tasks, but on the proviso that activities requiring some form of recording were also provided. (See also the summary results from the joint project with Gloucestershire University)

- *Discussion helps to involve parents, so the whole family can join in*
- *Helps improve speech and communication skills*
- *Is less stressful and can be done at odd times, like in the car*
- *Some children may not remember in class what they talked about at home*

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- *It would be harder for the teachers to check that the children had done their homework*
- *My child would still write things down because she prefers to*
- *As a parent I also learnt things from the discussions*

All these bullet-pointed issues points concur with my own findings, and I can match specific comments from some of my interviews to almost every one.

School survey responses	Original research quotes
Discussion helps to involve parents, so the whole family can join in	It was quite nice, actually, because instead of Child D3 going off and doing his homework we did all kind of get involved in it.
Helps improve speech and communication skills	I think it's always nice for a child to discuss it. Not because they can be influenced but it almost helps them to understand what they're thinking.
Is less stressful and can be done at odd times, like in the car	I think it's very good because you can do it whenever. You can do it in the car if you want to, can't you.
Some children may not remember in class what they talked about at home	
It would be harder for the teachers to check that the children had done their homework	There is the case that they don't have to do it and can just sit in class and think off the top of their head.
My child would still write things down because she prefers to	And some people were writing things down, so it's not really pencil free.
As a parent I also learnt things from the discussions	it did give you quite an insight into what they were actually doing and encouraged him to talk a bit more about what they'd been doing

Once again the 'minefield' effect can be seen in the parents' responses to some of the questions posed, as almost polar opposite views are expressed by different parents:

- *Tasks are sometimes too easy, so get completed too quickly*
- *Tasks are too hard, so drag on too long*

- *The maths games and activities are sometimes too easy*
- *The maths is often too hard*

- *Sometimes the tasks are too challenging*
- *I'd like to see my child stretched more with homework tasks*

This seems to be another emerging theme of this research, as predicted by Mr R at the outset of the project; the reality is that parents have very varied expectations of homework, and the school is unlikely to ever meet or satisfy them all.

9.8 Summary of research findings for chapter

- Mr R saw assessment as significant in the process of learning through homework
- Mr R recognised that families offer varying levels of support to the children with homework
- The 'minefield effect' is significant
- The research project had a formative impact on the school's consideration of homework policy and practice
- Methodological point: the headteacher's own survey of parents' views on homework provided valuable triangulation for the findings from the main research project.

9.9 Conclusions for the chapter

Mr R recognised that providing feedback for the children on their homework was very important, and suggested it was perhaps the most important issue to be considered when deciding whether to set a piece of homework or not: *'If it isn't worth following it up, is it worth setting the task?'*. This accords well with research by the Assessment Reform Group (1999) and others on the central importance of providing good quality feedback to children, but also addresses a fundamental question about the place and value of homework in enhancing children's learning or capacity to learn.

The 'minefield effect' has been noted throughout this thesis, and is seen to be significant again in the school's survey of parental views on homework, with some diametrically opposing views expressed. This represents a major challenge for primary schools, as they cannot please all of the parents all of the time. Managing parents' expectations in relation to homework is a significant task and, ultimately, a potentially impossible task.

In this chapter, I have provided an account of the final stage of the empirical element of the research. In the following chapter, I will present some tentative conclusions for the research project, review the research in terms of quality and method, and suggest some areas for further research.

Chapter Ten

Conclusions, including a critical review of research project

'Homework: right or wrong?' Alexander (2010, pg 83)

The aim of this chapter is to summarise and discuss the key findings of the research in relation to the research objectives, evaluate the methodological strengths and limitations of the study, and consider the extent to which the findings are generalisable. The chapter will conclude with some suggestions of areas for further research in relation to the study, and a consideration of how the findings of the study have been disseminated so far, and how they can be disseminated in the future.

The aim of this chapter is not to try to answer the somewhat unsophisticated question posed by Alexander (2010), above.

10.1 Key findings in relation to the research objectives

In this section, I will consider each of the research objectives in turn, consider the key findings in relation to the objective, and consider the methodological appropriateness of the data collection methods utilised.

Objective One: Understand the beliefs and attitudes held by primary school teachers, parents and children about homework and explore how these parties engage with it.

This objective was explored through interviews with the headteacher, the class teachers and with children and their parents, and these interviews provided useful insights into the complex and sometimes contradictory beliefs, attitudes and actions of the participants. The headteacher's survey also provided evidence of the parents' views on homework.

Roberts (2009, p. 14) claims that: *'most teachers would argue that homework is a worthwhile extension to learning, but that's where the consensus ends'*. My findings, in relation to this objective, suggest that the consensus ends much earlier than this. The teachers I interviewed demonstrated a noticeable degree of ambivalence towards homework, with several strong anti-homework sentiments expressed and some benefits and 'success stories' identified in relation to homework. As demonstrated in chapter four, this ambivalence was not the result of some teachers being positive and others negative about homework but, rather, that each teacher seemed to hold mixed or contradictory feelings about it.

Furthermore, the interviews with the teachers suggested that there was a 'mismatch' between their espoused beliefs in relation to homework and the actions they undertook, in keeping with Schon's (1983) theories, or that there was a mismatch between the 'theory' of the benefits of homework and the 'reality' in practice. The teachers suggested that schools felt that they 'should' set homework, or that it was something which was 'historically done' and that the parents would be concerned if the school did not set homework for their children, yet none expressed strong opinions about the learning benefits of homework. There were many comments from teachers that shed light on these mixed feelings, and I rather like this one from Miss D: *'I think it's good in theory, if it works ... yes. It's a tricky one. I don't know'*.

However, the teachers valued the support of parents in undertaking with the children the kinds of reinforcement tasks that it was difficult for the school staff to find regular time for each child to practice. There was very broad consensus that it was beneficial for the children if parents could hear them read regularly, support them with learning spellings and help them to rehearse times tables and other basic number facts, as these skills and knowledge often required regular reinforcement in order for good progress to be made.

Beyond this reinforcement of the basics, teachers demonstrated little commitment to the idea that homework was valuable as a learning experience for children; this links to the finding that the teachers also found it difficult to provide the children with meaningful feedback on their homework tasks.

Despite the reservations and mixed feelings about homework, the class teachers set what, in my professional experience, seemed to a reasonably standard number and variety of tasks which increased in length and challenge as children progressed through the school.

The children demonstrated a certain stoical acceptance of homework, and their attitudes towards it ranged from very reluctant to accepting or conforming. While none the children interviewed seemed to refuse to do their homework, several suggested that their main motivation for completing the tasks was to avoid being told off and kept in at breaktimes.

Parents had a variety of beliefs about homework, with one suggesting he did not know why schools set homework, while another felt it was a necessary part of a child's education, though he described it as '*a blessing and a curse*', a recognition of the challenges it posed as well as the benefits gained. Most parents saw homework in a similar vein, with benefits and negative aspects identified, and accepted it as part of modern life, as suggested by another parent: '*But it's not too bad. I don't know if I would say it's positive but it's certainly not negative, if that makes sense ... unless you're sulking*' (addressing son).

The use of interviews was appropriate as a research method to understand the beliefs and attitudes of the participants and to understand how they engaged with homework activities. The use of parent-child interviews was particularly effective in ensuring that responses provided realistic insights into the issues; a greater level of honesty was promoted than might otherwise have been the case, as suggested by one parent when her son admitted doing the homework at the last possible moment: '*I wasn't going to admit to that one* [laughs]. *Yes, we usually retrieve this crumpled up bit of paper out of his bag and do it on the Monday morning*'.

Other sources of data could have been utilised, such as observation of children undertaking homework in the home context; this would have been logistically very challenging and I believe the Hawthorn effect would have been so strong in this kind of observation as to make the data of very limited value.

Objective Two: Evaluate the impact and value of homework on children's learning and enthusiasm for learning, and on teacher-pupil, parent-pupil and parent-teacher relationships

This objective was explored through interviews with the headteacher, the class teachers and with children and their parents, and these interviews provided useful insights into the impact of homework on learning, enthusiasm for learning and relationships.

Learning: The teachers all felt that parental support for the children in learning 'the basics' was very important, but beyond this none gave much indication that the children might find homework beneficial in terms of their learning; one teacher suggested that the wrong children do the homework: '*Those that do it and do it well are probably ones that don't need to practice, and the ones that don't do it are the ones that should be doing it and don't*'.

Parents were able to give some examples of times when their children had learnt from homework, and these often involved the parent working with the child in a supportive way, such as this example from Parent D3: '*I think sometimes on the maths front, you know, because obviously I've been able to sit down with him one to one where he's struggled with something, then all of a sudden the light goes on and he goes 'Ah, I got that.' So from that side of it, that does help. Not always, but occasionally that's happened, hasn't it?*'. However, the same parent also voiced scepticism about whether homework had much impact on learning, though not as strongly as parent C2: '*What does homework achieve at the end of the day? Does it really achieve what they expect it to achieve? No chance*'.

As explored in chapter five, the clearest example of learning originating from homework was closely related to the child's engagement in the assessment and feedback cycle that enabled him to understand how his original work could have

been improved and gave him the opportunity to develop his writing skills further in a subsequent task.

Enthusiasm for learning: as shown in chapter five, of all children interviewed, only one showed no particular dislike of homework; the rest expressed reluctance to do their homework, with some expressing very great reluctance and a real lack of enthusiasm. While a lack of enthusiasm for completing homework tasks is not necessarily the same thing as a lack of enthusiasm for learning, it is reasonable to assume that the homework tasks were not having a positive impact on the children's enthusiasm and motivation for learning.

Parent-Child Relationships: the evidence on this issue suggested that most families experienced some negative impacts related to homework. All the teachers recognized that homework could cause tension within the home between children and their parents, and both teachers who were themselves parents referred to their own experiences at home to illustrate the point, for example this statement from Miss C: *'I just think it spoils the relationship at home. I know with my daughter, particularly with the coursework, it has been a nightmare. I'm having to nag her all the time'.*

As outlined in chapter five, nearly all families reported stress associated with homework, and most admitted to some levels of arguments and tensions, either over the battle of getting the homework 'done' and/or in the process of parents trying to 'help' their children with the homework, which children did not always welcome and parents did not always know how best to support their children.

However, families also identified some positives for their relationships as a result of homework, such as spending time together, being there for each other and parents particularly valued being able to make a contribution to their children's learning.

Teacher-Child relationships: most of the evidence on this issue suggested that the impact of homework on teacher/child relationships was mostly negative. Teachers disliked the fact that they often ended up nagging children about non-submission of homework, and that this often happened to include 'repeat offenders', and they recognized that this could cause friction and a long-term erosion of relationships. Where children did not submit their homework, a sanction was applied which also

undermined relationships, as explained by Mrs C: *'it can cause friction because we're quite hot on... We tick everyone off on a Monday if it is brought in, and we reward them so there's an incentive to bring them in, but if they don't we make them stay in at playtime, which means they're resentful because they miss their playtime, we're not happy because we miss our playtime'*. Children cited the consequences for non-completion as being the main motivation for getting homework done at home, rather than the rewards on offer.

As identified in chapter five, one child identified the fact that non-submission of homework can impact on a teacher's willingness to help and support children with their in-class learning. This is perhaps one of the most insightful findings of the research. None of the interviewees suggested that homework can enhance teacher/child relationships.

Teacher-Parent relationships: the teachers felt that the parents were generally supportive of homework, but where the parents found it difficult to enforce a regular approach to homework at home, this could sometimes cause a degree of tension between home and school, as suggested by Mrs C:

> *'We've had one new boy this year and he doesn't want to do reading, doesn't want to... so he won't. Because we make him but his mum won't, we have had a bit of... I wouldn't say friction but we have had to really state our case for it to be done. She's always coming back 'he can't manage it'.*

Parents reported that they liked to get an understanding of their children's learning, and homework sometimes, though rarely, provided them with some insight into this.

A potential weakness of the data collection approach was that the participants were only able to give their perceptions of the impact of homework. In some aspects, such as the impact on relationships within the home, this provided good insights as the children and parents seemed open and able to reflect on tensions experienced around homework. The impact of homework on learning, however, was much harder to evaluate, as it was difficult for the children and parents to identify specific learning that had resulted from homework; this does not mean that there was no cumulative learning effect from the homework, but providing evidence of this would have

required a longer term study involving detailed assessments of children's attainment and was, therefore, beyond the scope of this study.

Objective Three: Understand the perceptions of teachers, pupils and parents of innovative, active and discussion-based homework in primary science.

Objective Four: Evaluate the impact and value of pencil-free science homework on children's learning and enthusiasm for learning, and on teacher-pupil, parent-pupil and parent-teacher relationships

In reviewing the evidence for objectives three and four, it will be easier to provide a summary of both together. These objectives were primarily explored through interviews with the children and their parents, the science teacher and the headteacher; these interviews provided useful insights into the impact of the pencil-free homework on learning, enthusiasm for learning and relationships. The observations of in-class follow-up discussions and the headteacher's survey of parental views on homework provided additional evidence of the children's engagement with the homework, and the parents' perceptions of the pencil-free homework.

Learning: the observations of in-class follow-up discussions revealed that some of the children who reported doing the homework had engaged in some valuable learning discussions with members of their families, and these generated some useful learning points; the fact that the children then had the opportunity to recount these ideas to their peers and share them with the class may have enabled the learning to become further established. In some cases, the science teacher was able to identify some alternative ideas held by the children, or their parents, and develop the ideas in class.

In the interviews, all the children told me about things they had learnt from the homework; it is impossible to know whether they already 'knew' these things, or whether the homework had helped to reinforce the learning, or whether the homework had had any impact at all. It is possible to say that the facts and thoughts they told me were all scientifically sound and important scientific ideas, for example

this from Child C1 in relation to green plants: *'Well, I learned that if it doesn't get light it dies'*, and this from Child C2: *'It just left a little bit of yellow grass'*.

When asked about the problems with pencil-free homework, one of the most common criticisms raised by children and parents was that some children would choose not to do the tasks. In the interview with Mrs J, she felt that these children would still be able to learn from their peers in the class discussions, although they would gain more from actually doing the tasks at home as well.

Enthusiasm for learning: most families reported a greater level of enthusiasm for the pencil-free homework, as indicated by factors such as when the homework task was pulled out of the bag, as in this example from Parent C2: *'He was keen because I had it straightaway. He was like 'I've got my science homework'*; this was significantly different to the Monday-morning approach previously admitted to by Child C2. However, although this was a big step forward for Child C2, he found it hard to maintain any enthusiasm beyond the requirements of the task: *'He did them and he enjoyed them a lot more than he does normal homework, but we probably learnt what he was meant to learn on the sheet'*.

In contrast, other families reported that engaging with the pencil-free homework was a useful starting point for extending learning, such as family D3 who discussed approaches to debating when they found they had different points of view on a task about friction in sport. This suggests that Hughes and Greenhough (2003, pg. 107) have a good point when they suggest that *'what constitutes a 'good task' may well vary significantly from student to student'*.

With the exception of C2, all families reported finding the pencil-free homework more enjoyable than other homework: *'Mm. I liked it much better'*, *'It was much better. I enjoyed them. You enjoyed them'*. This was linked to the fact that no writing was required, but also linked to the sociable nature of the tasks and the active or open-ended nature of the questions or issues for discussion: *'It was quite nice, actually, because instead of Child D3 going off and doing his homework we did all kind of get involved in it, especially the one with the sun and the moon with your father trying to eat the apple didn't help'*.

Parent-child relationships: this area yielded some of the most interesting and compelling evidence of the research project. One parent reported that pencil-free homework had caused as much stress as any other kind of homework, as trying to engage their child after a busy and tiring day at school was a difficult task: *'hard work for her to get him to get the communication going on what the idea of what was going on was'*. However, all other families provided some insights into ways in which engaging with the pencil-free homework had provided opportunities to enhance relationships within the home. Two families reported that, with some homework tasks, every member of the family had got involved with discussions about friction in sport or how day turns to night. These 'learning-focused' discussions were seen as more positive than previous experiences of more functional, and sometimes more fraught, conversations related to getting the homework 'done'. These learning discussions enabled parents to feel that they understood more about their children's learning, and could get involved in supporting them.

With the exception of the family C1, all families found the pencil-free homework less stressful in terms of finding time to do them, as they could be carried out at any time; a good example was family D2 who did one homework *'whilst we were making the tea'*.

Teacher-child relationships: there was limited evidence on this issue, but it was significant that the children were not worried about these homework tasks in terms of handing them in, which had been a major stressor with normal homework. The science teacher asked children to indicate whether they had done the homework by using a show of hands and, following her encouragement for all children to have a go at the tasks, the number of children claiming to have done the tasks increased over the first few weeks. The science teacher felt that she already had a good relationship with the children and already encouraged discussion and active learning in her lessons, so did not feel that the homework had any impact on pupil-teacher relationships.

However, the 'success story' she recounted (see chapter eight) suggests that children's engagement with homework is closely linked to the pupil-teacher relationship and the expectations made explicit through that relationship.

Parent-teacher relationship: there was no explicit evidence on this issue. However, parents reported feeling that they had more insight into their children's learning which serves to strengthen the home-school partnership.

10.2 Dissemination and impact

My research is small-scale and has the limitations outlined above, but also has relevance both to schools and to policy makers. It is, therefore, important to disseminate the findings as widely as possible, in order to inform policy and practice at both local and national level.

In January 2010, I attended a conference at the Department for Children, Schools and Families for education researchers working in Higher Education Institutions, at which I was able to discuss my research with representatives from other Universities, and hear about their research. Following this conference, the DCSF invited attendees to submit a summary of their research to CUREE (the Centre for the Use of Research and Evidence in Education) for dissemination to practitioners in schools and to appropriate policy makers. In submitting my summary, I suggested that the research had implications for both schools and the Qualifications and Curriculum Development Agency and the Department for Children, Schools and Families as they prepared, at that stage, for the introduction of a new primary National Curriculum in 2011. A great deal of resource in terms of time, money and thinking had been invested in planning how the new curriculum would look and work in school (QCDA 2010) and I argued that similar consideration needed to be given to how guidance on homework could be developed that would enable schools to incorporate it as an integrated part of their approach to curriculum, rather than as the bolt-on that it too often is at present. In May 2010, the Conservative and Liberal Democrat Coalition government took office, and, in very quick succession, the DCSF was renamed 'The Department for Education', the Qualifications and Curriculum Development Agency was scrapped and the proposed new curriculum was abandoned. However, following a delay due to parliamentary purdah, CUREE contacted me in July 2010 with some requests for editing before presenting the summary of findings to the Department for Education in October 2010.

On successful completion of this thesis, I intend to submit an article for publication on my research to an appropriate and relevant journal. In preparation for this, I intend to make a presentation of my findings to colleagues within the education team at the University of Gloucestershire at one of our regular research seminars, as recommended by Silverman (2010).

The nature of my professional work as a teacher educator enables me to discuss my findings with hundreds of student teachers each year and our regular partnership conferences allow me to promote some discussion on these issues with teachers and mentors from our partnership schools. The publication of the three pencil-free homework books in Science, English and Maths by Forster et al (2010), McGowan et al (2010) and Parfitt et al (2010), also provide a professional and practical basis for disseminating the key ideas that underpin the research.

10.3 Methodological strengths and limitations

As demonstrated through the review, in this chapter, of the effectiveness of the research in addressing the research objectives, the methodology was appropriate for answering the research questions and meeting the research objectives.

A distinctive approach utilised in this research was the strategy of interviewing each child and parent together; this approach, combined with the use of semi-structured interviews, enabled me to rapidly establish a relaxed and open atmosphere in which children and adults felt happy to be honest and revealing about their family life and approaches to homework (for example, see the comment about crumpled paper on page 74 and the description of family arguments on page 86).

The semi-structured interviews also enabled me to explore issues in an organised yet flexible manner; this revealed some good insights, such as the follow-up question I asked to child and parent D4: 'So when you say "fallout", what happens?' (see pg 86), which led to a colourful description of the kind of family angst associated with homework.

One of the challenges of using semi-structured interviews was the need to listen carefully and respond in ways that developed the discussion and drew more insights from the participants. Occasionally, this non-scripted approach can lead to the

interviewer asking an unhelpful or inappropriate question. For example, in the very first interview with Mr R, we were having a good flowing discussion when I suddenly asked, *'What's your school policy on homework?'*; this was both unfair to Mr R as it came out of the blue, but was also unrevealing, as it is an impossible question to answer in a few words.

One potential criticism of the approach taken is that the researcher was also the main protagonist of the innovative approach to homework; I tried hard to build an open and honest rapport with everyone I interviewed, but I would expect that some responses were possibly slightly more positive about the homework and its impact than if I had been an impartial observer. Making any change in a context as a result of a research intervention makes the results susceptible to the Hawthorn effect; the act of making the change itself generates interest and a degree of motivation by the participants due to the interest taken in them by the researcher.

Another aspect of the research which is potentially open to criticism is the way in which a 'comparison' was made between general homework, which tends mostly to be English and mathematics work, and the innovative science homework; it is possible that the subject itself might have impacted on the results as much as the innovative approach.

10.4 Reliability and generalisability

The received wisdom is that small projects like this one cannot be considered reliable, and this is particularly problematic for qualitative projects (Boler, 2005); normally, a much larger sample size would be required if the findings were to be considered applicable to other similar settings. However, according to Stark and Torrance (2005, p. 34), the advantage of a case study like this one is that *'readers recognise aspects of their own experience in the case and intuitively generalise from the case'*. I believe this is the case, as evidenced by the fact that many of my colleagues in the Department of Education at the University, and in the world of education more widely, have commented on my research findings with a large degree of recognition; I have also been grateful to receive so much encouragement from so many colleagues who have seen my research as a positive step in the right direction on a difficult issue.

(One of my colleagues regularly asked if I wanted to extend my research into her children's school, and several colleagues have shared with me examples of homework sent home for their children to do, which they have considered unsuitable or unhelpful for their children, including 'write a poem about Buddhism'. This could, of course, be a whole new doctoral study in itself: see below.)

10.5 Where next?

The results of this enquiry clearly indicate further research is required in this area; I suggest that this would most usefully be conducted by practising teachers, as this is much more likely to inform and develop practice.

In this project, only one 'new' way of improving homework was trialled; creative teachers across the United Kingdom and beyond will have grappled with this issue and come up with creative and powerful solutions. If I were to conduct further research on this topic, I would like to gather as many examples as possible of what teachers themselves consider to be 'good' homework tasks, with their own rationales to explain and justify their claims. One or two adverts in practitioner papers or websites might unlock a host of good ideas.

A significant aspect arising from this research is the impact of homework on the affective domain, on children's enjoyment and enthusiasm for learning, and their emotional connection with the work. In the drive to raise standards, this has sometimes been overlooked. Further research on the impact of homework on the affective domain and children's enthusiasm as life-long learners would be very valuable, as would exploration of how to develop children's positive attitudes to learning through home/school partnerships.

The link between homework and assessment for learning is another feature that emerges from the work as being worthy of further research; the evidence from the first stage of this project indicates that, regardless of the task, the feedback that children receive, and the way in which they are engaged with the feedback, is significant in influencing the value of the task as a learning experience. Further research on this issue should explore ways in which children can be provided with effective and engaging feedback on homework tasks.

A fundamental implication for practice in primary schools has been the finding that 'homework for homework's sake' is not seen as effective, and that fewer, more meaningful tasks would be more beneficial than the blanket approach currently used in many schools. However, this needs to be balanced against the need for schools to be clear with parents about their expectations with regard to homework, in which case a regular routine is much easier to manage. Further research on balancing these apparently conflicting demands would be beneficial. Alexander (2010) found evidence that 'children do better when schools offer parents specific advice about homework' although he does not say how he has defined 'doing better' or what kind of specific advice is most helpful.

Further questions arise from this enquiry and are worthy of exploration in future research. These include:

- In relation to the child's whole school experience, how much does homework add or detract?
- Is the homework task or the feedback most important in supporting learning?
- Is there something very distinctive about science that lends itself to pencil-free homework; would it be naïve to assume the principles could also be applied to English and maths?
- Is how a child feels about homework more important than the task itself?
- Since parents have widely diverse views on homework, and it becomes impossible to please everyone, could responsibility for 'home learning' be shifted from school towards parents?
- Could children be encouraged to devise their own homework tasks?

Another possible development, on a professional level, would be to write a fourth 'Active Learning' homework resource book for teachers, informed by this research, perhaps on a 'Thinking Skills' theme.

10.6 Final conclusions

This has been a small-scale study, limited in time, scale, and scope, with potential weaknesses in its operation, yet it has produced some profound findings in relation to homework, learning relationships and learning practice. The work has only just

scratched the surface in relation to effective homework, but already it has provided some valuable insights in relation to improving, not just learning outcomes, but perhaps more significantly, relationships, learning potential and personal fulfilment.

The research has been significant in engaging with an issue where there is widespread discontent amongst practitioners with current practice and yet it is rarely challenged in a positive way; this enquiry has taken a problem-solving approach to explore ways in which homework can be made more effective and developmentally useful for children.

Children's views are rarely heard in education discourse, and in this research their views are heard and valued. Too often, education is 'done' to the children in our schools, and this research aims to show that children should be given a voice in the decisions that affect their schooling, as they are capable of providing some profound and important insights into the learning process.

It is only appropriate, then, that the last word should go to one of the children. Child D3, who was the most homework-averse in the initial interview, seemed to engage well with the active science homework, and came to this conclusion: '*if you do your homework you learn more stuff*'.

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Appendices

1. Copy of the pencil-free homework tasks for Class C
   a. Task 1: Helping plants grow well: growth, roots and shoots
   b. Task 2: Helping plants grow well: light (part one)
   c. Task 3: Helping plants grow well: light (part two)
   d. Task 4: Devising an investigation: best temperature for growth
   e. Task 5: Habitats: plants

2. Copy of the pencil-free homework tasks for Class D
   a. Task 1: Earth, Sun, Moon: day and night
   b. Task 2: Forces in action: friction in sport
   c. Task 3: Devising an investigation: best conditions for dissolving
   d. Task 4: Reversible & non-reversible changes: your questions
   e. Task 5: Reversible & non-reversible changes: the water cycle

3. Guide questions for semi-structured interviews with teachers

4. Guide questions for semi-structured interviews with child and parent

5. Guide questions for semi-structured interviews with science teacher

6. Letter to parents regarding research project

7. Sample letter and consent form signed by all participants

8. School survey and results

9. Transcript of interview with Miss D

10. Transcript of interview with Child D4 and Parent D4

Helping plants grow well - growth, roots and shoots

Aims of the activity: to explore what happens to roots and shoots when a bean seed germinates.

Try this: roll up some newspaper and place it in a see-through pot. Now push your bean down the side (between the newspaper and the outside of the pot) making sure you can see it clearly. Wash your hands afterwards. Add a centimetre or two of water.

Keep the newspaper damp and look after your bean every day. Watch for any changes to your bean.

To think about and discuss: what did you notice? Discuss your findings and ideas with someone at home.

Helping plants grow well - light (part one)

Aims of the activity: to explore the importance of light for growth in green plants

Try this: cover a small patch of grass with something solid that won't let light through, for example a brick, stone, plant pot or piece of wood.

(Make sure you check with an adult where it would be OK to do this!)

To think about and discuss:

thinks

What do you think will happen to the grass?   What else might change under the cover?

Helping plants grow well - light (part two)

Aims of the activity: to review the appearance of your covered grass and to consider the importance of light for growth in green plants

Try this: remove the cover from your patch of grass and look carefully at your findings

To think about and discuss:

Think about what has happened to the grass and discuss with someone else some reasons for any changes you have seen. Did anything else change under the cover? If so, what?
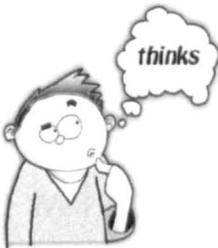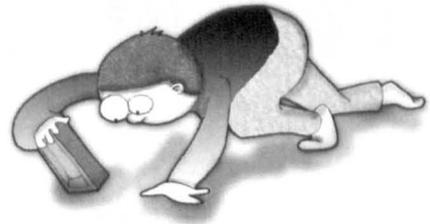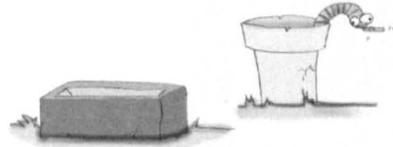
Leave the grass uncovered now, what do you think will happen?

What do you think will happen to the grass? What else might change under the cover?

Pencil-free homework – note to parents: this work is designed to reinforce your child's learning through talking and doing. Please work with them on the tasks, or involve other members of the family.

Devising an investigation: best temperature for growth

Aims of the activity: to think carefully about planning a fair test

To think about and discuss: how could you test to find out what is the best tem-perature for growing plants? (You don't need to carry out your plan.)

Fair Test, mmmmm

You will need to make sure you plan a fair test, and think about:

- how you could make measurements
- how you could decide which is the best temperature

Tell someone how you will ensure it is a fair test.

If you want to, and have time, carry out your investigation.

Pencil-free homework – note to parents: this work is designed to reinforce your child's learning through talking and doing. Please work with them on the tasks, or involve other members of the family.

Habitats: plants

Aims of the activity: to consider the importance of plants in our lives.

Try this: predict how many things you used and ate today that came from plants.

Make a mental list of all things you can think of.

Think about and discuss: Is your list more or less than you predicted? Are there any items that puzzle you?

Pencil-free homework – note to parents: this work is designed to reinforce your child's learning through talking and doing. Please work with them on the tasks, or involve other members of the family.

Earth, Sun, Moon: day and night

Aims of the activity: to explore how day and night occur

Try this: take a torch and a spherical object (an apple, orange or tennis ball would do) into a darkish room. Shine the torch on the ball and slowly rotate it on the spot to show someone how day turns to night.
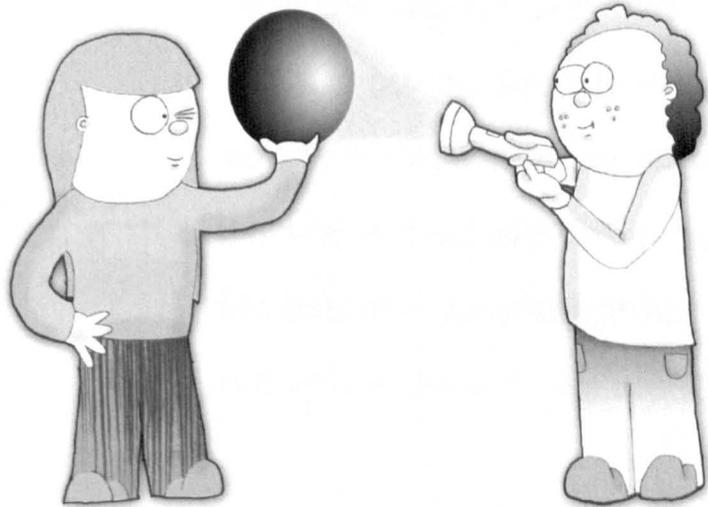
To think about and discuss:

Does everyone have night-time at the same time?

When it is midday in England, what time is it in Australia?

Do you have any questions of your own about day and night?

Pencil-free homework – note to parents: this work is designed to reinforce your child's learning through talking and doing. Please work with them on the tasks, or involve other members of the family.

Forces in action: friction in sport

Aims of the activity: to explore how friction is important in many sports, and a lack of friction in others

Active Fact: *runners who compete in sprinting events use spikes on the soles of their running shoes to give them extra grip (increased friction) on the track*

To think about and discuss: how do people in other sports try to increase friction in different situations, e.g. footballers, goalkeepers, mountain bikers, ice climbers

In which sports is it important to reduce friction as much as possible (don't forget that air resistance is also a form of friction)? How do sports people try to reduce friction?

Pencil-free homework – note to parents: this work is designed to reinforce your child's learning through talking and doing. Please work with them on the tasks, or involve other members of the family.

Devising an investigation: best conditions for dissolv-

Aims of the activity: to think carefully about planning a fair test

To think about and discuss: how could you test to find out the best conditions for dissolving sugar in water? Try to think of all the variables that could be changed during the investigation.

Fair Test, mmmmm

You will need to make sure you plan a fair test, and think about how you could make measurements or observations upon which to base your conclusions.

Tell someone how you will ensure it is a fair test.

If you want to, and if you have time, carry out your investigation.

Pencil-free homework – note to parents: this work is designed to reinforce your child's learning through talking and doing. Please work with them on the tasks, or involve other members of the family.

Reversible and non-reversible change: your ques-

Aims of the activity: to think of questions related to reversible and non-reversible changes

To think about and discuss: tell someone everything you know about reversible and non-reversible changes.

Tell someone any questions you have about reversible and non-reversible changes, and ask them if they have any questions.

Choose your favourite question to share with your class; you don't need to know the answer!

Pencil-free homework – note to parents: this work is designed to reinforce your child's learning through talking and doing. Please work with them on the tasks, or involve other members of the family.

Reversible and non-reversible change: the water cy-

Aims of the activity: to think about the water cycle and where our water comes from

Try this: drink a glass of water

To think about and discuss: where does your water come from?

Tell someone everything you know about the water cycle.

Where will the water you drank go next on its journey?

Pencil-free homework – note to parents: this work is designed to reinforce your child's learning through talking and doing. Please work with them on the tasks, or involve other members of the family.

DRAFT interview questions for teacher interviews

Semi-structured interviews

Why, do you think, do primary schools set homeworK?

Tell me about a piece of homework you have set recently that you were pleased with.

How is the homework process managed? Feedback to pupils?

I used to pile homework up in an unmarked pile then throw it away. What do you do?

These questions should be sufficient, when developed responsively, to open up enough of a discussion to provide an insight in the issues.

I need to be wary of being the thought-police ....

DRAFT interview questions for parent/child interviews

Semi-structured interviews

Tell me what happens in your house when you have homeworK?

Tell me about a piece of homework you have done recently.

What do you learn from homework?

These questions should be sufficient, when developed responsively, to open up enough of a discussion to provide an insight in the issues.

Post-project interviews

Did you have a go at any of the pencil-free homeworks?

How did you get on with the pencil-free science homework?

Which was your favourite one? Why? Memorable?

Any good discussions? Any that went beyond the task?

When did you do them – how did they get done?

There's nothing to hand in – what happened in the class discussions?

Did you need any encouragement?

What do you think might be the benefits and disadvantages?

Any arguments or stress?

DRAFT interview questions for interview with Science Teacher

Semi-structured interviews

Post-project interviews

How did it go?

It seemed to me as though more joined in each week – is that right?

What was the impact on children who didn't do the tasks at home?

Any impact on teacher/pupil relationships?

How did the discussions go? Did it provide any opportunities for assessment?

Tricky question: impact on learning or enthusiasm for learning?

What do you think might be the benefits and disadvantages?

How do you think this might impact on future practice?

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Dear Parent/Carer,

Re: Research into primary homework (science)

Mr/Mrs X has agreed to my conducting some research in (name of) school on the issue of homework. I am a former primary school deputy headteacher and am currently a lecturer in primary education at the University of Gloucestershire; the research project is the central element of my study to gain a doctorate in education.

The research project aims to discover more about how children engage with homework and how homework can best be developed to enhance children's learning and enthusiasm for learning; the study will focus on science homework.

The research will have three main stages:
1. Gathering data on the perceptions of children, parents and teaching staff on the effectiveness of homework in developing children's learning and capacity for learning
2. Introducing a new approach to homework
Gathering data on the perceptions of children, parents and teaching staff on the effectiveness of the homework trial in developing children's learning and capacity for learning

As part of the research project I will be seeking the thoughts and experiences of children and parents. One way to achieve this will be to organise a small number of interviews, each one involving a child and one of their parents/carers. If, at this stage, you think you might be interested in contributing to the discussions in this way, please could you indicate below. (The research will involve gathering data through interviews and surveys. Digital audio recordings of interviews will be used, with the permission of interviewees, and these will be stored securely for the duration of the project, then destroyed. All material will be treated with confidence outside the school; the names of the school and participants involved will not be revealed in the thesis, or to any third party. There will be the right to withdraw at any stage. There will be no detrimental impact on any child in choosing to or not to be involved in interviews.)

If you have further questions and need clarification, I will conducting an information event for parents on......

I will provide Mr/Mrs X with a summary of the findings of the research; the findings may also be published in national and international education journals.

Yours

Colin Forster
Homework research project co-ordinator

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Dear (Parent/Carer's name) and (Child's name),

Re: Research into primary homework (science)

Thank you for agreeing to take part in some discussions about your experiences of homework, as part of my research project.

The research project aims to discover more about how children engage with homework and how homework can best be developed to enhance children's learning and enthusiasm for learning; the study will focus on science homework. The research project is the central element of my study to gain a doctorate in education.

The purpose of holding these discussions with you both is to enable me to understand what you think about homework, what happens in your house when you have homework, and how you think homework contributes to learning or enthusiasm for learning.

I hope to be able to meet with you twice, in order to see how your views change or develop over the time of the project. However, you have the right to withdraw from the process at an stage.

If you are happy for me to do so, I will use a digital audio recorder, in order for me to keep an accurate record of our discussions; you will be provided with a transcript of the interview. The recordings will be stored securely for the duration of the project, then destroyed. All material will be treated with confidence; the names of the school and participants involved will not be revealed in the thesis, or to any third party, or in any articles written about the research for national or international journals.

If you have any questions about the project at any stage, I will be happy to answer them.

Yours

Colin Forster
Homework research project co-ordinator

Tel: 01242 714633
E-mail: cforster@glos.ac.uk

Informed Consent Form: Parent / Carer and Child

I am happy to take part in a discussion about homework as part of the research project into primary homework (science).

Name of child and parent: ....

Signed (Child): ....

Signed (Parent/Carer: ....

I am happy for a digital voice recorder to be used.

Signed (Child): ....

Signed (Parent/Carer): ....

Signed by researcher: .... Date: ....

<u>X Primary School</u>
<u>Summary of Parent Questionnaires Re: Homework, February 2010</u>

(75 questionnaire were sent out and 26 returned, a response of approximately 35%)

How happy are you with the current arrangements for homework in terms of;

The time it takes for your child to complete the tasks set each week?

Poor	Satisfactory	Good
4%	40%	56%

Summary of "Comments" (Question 1a)

Poor concentration means tasks take longer than they should
Pleased with flexibility over completion dates
Tasks are sometimes too easy, so get completed too quickly
More time should be spent doing homework to prepare children for secondary school
Tasks are too hard, so drag on too long
More time should be given for research tasks or projects

The amount of support your child needs to complete the tasks?

Poor	Satisfactory	Good
8%	46%	46%

Summary of "Comments" (Question 1b)

- Clearer instructions are needed, so I can help more
- Explanations of tasks are really useful
- Providing an example for us to follow would be helpful
- Tiredness means more support than normal is needed
- Homework Club is really helpful
- Children sometimes forget the task and so need more support to get going
- The maths games and activities are sometimes too easy
- The maths is often too hard

The content and range of tasks set, so that they effectively support your child's learning?

Poor	Satisfactory	Good
12%	54%	34%

Summary of "Comments" (Question 1c)

- The tasks normally seem quite enjoyable and help to reinforce work in lessons
- There's a good variety so my child never gets bored with homework
- Reading and spellings are really important

- Reading and spellings are really important
- The tasks help children achieve their targets
- The tasks often fail to engage my child
- More creative/hands on tasks would be good, perhaps some story writing
- Sometimes the tasks are too challenging
- I'd like to see my child stretched more with homework tasks

What are your views on homework tasks that only require discussion, rather than writing things down?

A Summary of "Comments" (Question 2)

Generally a positive view was expressed regarding the setting of "pencil less" homework tasks, but on the proviso that activities requiring some form of recording were also provided. (See also the summary results from the joint project with Gloucestershire University)

- Discussion helps to involve parents, so the whole family can join in
- Helps improve speech and communication skills
- Is less stressful and can be done at odd times, like in the car
- Some children may not remember in class what they talked about at home
- It would be harder for the teachers to check that the children had done their homework
- My child would still write things down because she prefers to
- As a parent I also learnt things from the discussions

Please add any further comments you would like to make about your child's homework.

A Summary of "Comments" (Question 3)

- Could children be set less h/work in the summer months, so they can play outside more?
- A homework diary would be helpful
- I wish children of this age weren't given any homework
- They don't seem to do much homework, is this good or bad?

Mr R.
February 2010

Researcher: bold

Miss D: normal font

Exactly. So not the easiest thing to do. Erm, okay, I'll just say your name for the, kind of, the records. So this is XXXX. Erm, tell me about how homework happens in your class.

Erm, in my class currently we have homework weekly for both literacy and numeracy, on top of that we have spellings, and they're expected to read and have reading records signed weekly as well. Homework is one piece of literacy and one piece of numeracy a week, handed out on a Friday and back in on a Wednesday, and it's normally just a consolidation of what we've been doing in class.

Mm. That was the warm up question.

Yes.

Now for a trickier one.

Yes.

Why do you think schools do homework?

I think a lot of schools feel like they should do homework. I know it's something that I've never been told whether I have to do it or don't have to do it. It's just something that historically is done, I think, in all honesty.

Yes. So why... So if that's the generic case, why do you set homework?

Because in theory I think it's a good idea to consolidate the learning that you've done during the week, erm, but obviously there's hitches with that. If they haven't got what you're doing, to send them a piece of paper home with sums and no help is pointless. Erm, but... I think it's good in theory, if it works... yes. It's a tricky one. I don't know. Again, it's not something we're told about at uni or in training to teach.

No. It tends to be an assumption really, doesn't it?

Yes.

that homework will probably be a good thing.

Yes.

And there are lots of pressures on that. I mean the government obviously thinks it's a good thing. Parents very often think it's a good thing and it's a sign of good school.

They expect it, don't they?

Mm. And it's the kind of issue that polarises parents' views in many ways.

Yes.

I mean you've said a couple of times there 'in theory.'

Mm.

So it's good in theory. This is, again, it's quite tricky. But can you think of homework that you've set recently where you think, yes, actually that was quite useful to the children in terms of their learning?

Okay. Recently they've been doing a lot of research on mountains, so a lot of the literacy homework we've sent home is research, with key questions. I think that is really good because it's practical. They're looking, they're asking, they're talking about it. Erm, the flipside of that, I sent home some division chunking methods homework, and, again, yes it's positive because it becomes apparent who really hasn't got it, but it's negative because a lot of them have got older brothers and sisters who are going through it with them to the point of doing their homework for them. So that's the two sides, really, example-wise. I like the practical things, which obviously is emphasised by what you're doing.

Yes. Erm, And there are lots of unknowns, aren't there, with homework?

Yes. You don't know who is controlling it, how long it's taking them, where they're sitting and doing it, and who they are doing it with.

Mm.

Definitely. One little boy I've got, he is a lower ability child and yet his homework is coming in every week and it's nearly ninety percent correct. Now, I know if he'd have done that on his own it would have been thirty percent.

Mm.

But we can't really put controls on that, can we?

No, and possibly having a bit of help at home is helping.

Mm.

But you just can't be sure.

No, because I've got no true reflection or monitoring of how he has understood, apart from what he's doing in class, which kind of defeats the purpose of it being consolidation in some respects.

Yes. What about the assessment of homework?

Erm, it's marked every week by me. All homework is marked by me.

Is it really? That's extraordinary.

It's all marked by me.

I mean when I taught in London, we had so much homework that we gave that I used to pile some of it up and eventually throw it away.

Did you? I might do two lots and sit down in one big go and do it.

Mm.

But it's all marked by me. The monitoring of it, the handing in of it, the recording and filing of it, all homework filed is done by the TA.

Okay.

But we have the system that I mark it. She checks it, I mark it. It gets monitored that way.

Yes. And when it has been marked, where does it go?

It goes into a file and the children don't see it, in all honestly.

Okay.

So they're not getting any... Unless it's a case where they really haven't got it, and it's obvious, then I feed it back to them.

Yes.

If there's a few errors then they don't get to see that homework again.

And then at the end of the year or something...

It gets piled up, and taken out of the files, and recycled.

Okay. So why are you marking it?

For my benefit, I think, as well, just so… because I feel I should. It's a piece of work they've done, and because I want to see if it has been useful for them.

Yes.

But probably more because I feel I should.

Yes.

Because it's a piece of work.

Yes, absolutely. And that's what drives lots of what we do in education: 'Well, I think I should.'

Yes, definitely.

Interesting. Erm, so if a child has done a piece of work and you can see particularly, oh, right, I can see there's a particular element there where they're struggling…

Yes.

And then you can come back to it and help them with it.

Yes.

But otherwise, most of the time…

I'd speak to them one on one during lunch or break time and have them in.

Yes. Okay. Another aspect that I'm interested in, in regards to homework, is the relationship, you know, the relationship you have with the children in the class, and the parents, and all of those.

Sorry.

That's alright. Take it if you need to.

Hi, XXX. Can I call you back later. Thanks. Sister. So relationship between…

Well, the impact of homework on all those kind of delicate relationships, because lots of what we do in primary school is really about the people and the way the people work together, isn't it?

Yes, definitely.

You said to me the other day that you use that paper building activity at the beginning of the year because fundamentally what makes a primary classroom work is that really subtle dynamic relationship.

Mm.

What do you think are the benefits of homework in terms of developing those relationships between yourself and the children, and yourself and the parents?

It gives me a link with the children to the parents, I think, and it gives me a good idea of the support that they're getting at home surrounding school issues and school work. Erm, aside from that, I don't really know, because with a small school, anyway, you do have that connection with the parents, you know. They'll come in. It's a pretty open door policy.

Yes.

They'll come in, and knock on the door, and have a chat, but aside from that I can't really honestly see too many.

Mm. I think you're right about the small school because when I was in her the other day, I didn't go away exactly wistfully, but I did go away with a feeling of, actually, look, there is quite a very strong community feeling there.

Yes, there is.

Erm, people felt very comfortable and able to talk with each other about things, which was great.

Mm.

What about any of the drawbacks of homework in terms of relationships?

I always feel I'm nagging about it, the handing in of it, especially year six. At the moment, they have got so much work on them that it's the same culprits every week forgetting it, so I do feel I'm nagging, and I do sometimes feel guilty about that because, like you say, yes, I'll mark it, and I'll know that child will probably get ninety percent of them correct and it will go in the bin at the end of the year, so I do feel mean about it in that way. Erm, I think it can be a negative thing at home, definitely. Erm, again, one child I'm thinking of never does it, is always pulled up on it by us, we then moan to the parents about it at parents' evening, and she gets a hard time for it. So I think it can cause friction between the parent and the child, and the teacher and the child.

Yes. And how well... How do the parents react generally to homework? Is it an issue which...

Positively. I think they're generally very supportive; maybe not so about the reading, which surprises me.

Oh, really? That is interesting, isn't it?

Especially in this year five/year six.

Right, because by this age they think...

They think 'I can read; that's it. There's no further purpose.'

Yes.

The reading is more of a dodgy area for the parents than the homework.

Mm. That is quite interesting, but I think that is symptomatic of the year five/six class, isn't it?

Like you say, historically, parents expect homework to be sent, so they're there 'When's your homework due? What have you got?' So they're used to doing it.

Mm. Yes. I mean it was interesting... I don't know if you could see parents' faces the other day.

Yes.

But just a couple of the comments that were made, you could just see the recognition in their eyes about...

Yes. One of the ladies who were sat over there, she said the two boys... the smaller one actually was my year six last year and he was horrific with homework, so she looked over and winked. Yes, we had a real battle with him, so she's fully aware of it.

Mm, absolutely. Okay. So you know the project that I'm suggesting in terms of trying homework where there's nothing to write down and it's all doing and talking.

Yes.

In my mind, it ties in quite well with what we know about children's learning in school.

Yes.

Because I guess you do activities in school that involve quite a lot of doing and talking.

Yes.

And it's trying to transfer that to home. I've been really delighted with the positive response here, you know, from yourself and Jane particularly as well.

Yes.

'Yes, let's give it a go.' What do you think are going to be the problems with it?

Monitoring of it, maybe. Yes, okay, you can have a child that will go home and be quite enthusiastic about doing it at home, parents are fully on board, come back to class for the discussion side of it, and they just sit there and there's no feedback at all from them. I don't know really what... The fact that there isn't a paper, there isn't something on paper, just feels awkward. It feels strange, but I think that's more from us than anyone else.

Mm.

I think it sounds a really good thing in theory.

In theory, yes.

Because we haven't seen it yet, we don't know.

Absolutely. Yes. What do you think might be the benefits of it?

Again, the speaking and listening side of things. Erm, often, you'll know as well, you have children who you can explain it to you orally but they try and write down an explanation on paper and they've lost it.

Yes.

I've got a child in here who is year five, level one writer, so for him to be able to discuss and explain would be fantastic.

Mm.

Sadly, his parents aren't that supportive so he won't be doing it.

Mm.

But in the future he could really benefit from that type of learning.

Yes.

He does benefit from that learning in class, so why not extend it?

Yes. Absolutely. Is there anything else that you want to kind of tell me, or any other thoughts you have about homework generally that you think you'd like to get off your chest at this time?

I think this project is going to be really good for the school, as such, because I mean Mr R will admit there is no policy, you know. What I do is completely different to what XXXX does in Year 3 and Year 4. So hopefully out of this will come continuity...

Yes.

In whatever form.

Yes.

Especially in Key Stage 2.

Yes, which is where really homework... If we are going to have homework, that's where...

It's most important.

Absolutely. And the reasons that we do it are because we think it's value and worthwhile, and not...

Because we should.

Just because we should, or because that's what is done.

Yes.

I think that things... If you look at the way the primary curriculum has changed over the last ten years... you know, I started teaching just when the literacy and numeracy strategies were coming in, and it was all kind of pushing down, if you like, on teachers and saying 'you're not good enough. You've got to teach like this. Do it this way. Do it that...' And now in the last few years schools have been much more creative with their curricula, aren't they?

Yes.

Thinking, 'Actually, I can teach this in any number of different ways.'

Yes.

And it's taking that down and applying it to homework to see how we can extend it, so...

Mm.

Well, thank you very much, XXX.

No problem.

Researcher: Bold

Parent D4: Italics

Child D4: normal font

So what have you been doing in mad science today?

Well, we were looking at different... we were looking at the eye vision and it was all the different colours that your eye sees. Say you were looking at a banana, your eye will automatically think that's the colour that it goes with and then it will pick them out of the rainbow colours. We had a match, and we were lighting it, and then she put a coloured powder and the lighter went a different colour.

Fantastic.

Just sign it.

Just your name.

And we have to do this one, yes.

Yes, please. It means you can have a copy and I can have a copy. It saves us rushing off to photocopy them.

Okay.

So did you enjoy mad science?

Yes, it was good. One of the boys had to go home halfway through.

Why?

He was screaming and shouting because he had a bad headache.

Was that as a result of mad science?

I don't know.

Thank you. So what year are you in, Child D4?

Six.

Okay. So you're a bit of an old hand when it comes to homework, are you?

Yeah.

Okay. Great. Thanks very much. So what's good about mad science?

It's not too much writing down. You don't have to... it's quite... You will have to put something together, so we had to make... we had to use a battery and two bits of plastic that joined up to make a stand, and then the battery spun round, and it had a little something at the top where you stuck something down and then it went round. It's good because you don't have to do any writing. You can just sort of imagine it and look at something without having to write it down on paper. Yeah, it's better than what we normally do when we have to get a book out and write it all down, but... It's good because you can think... you can see it, but then also at the end she'll have a few questions saying 'What did you see?'

Sometimes you go through the motions when you write stuff, don't you? You don't actually take it in. You go through the motions of writing and copying or whatever. I mean I know I was definitely like that. I used to just write and not really realise or understand what I was writing. It was just a case of copying from a book or writing down an experiment that we had done, but I didn't actually understand the workings of that experiment or why it happened like that. It's just a case of that's how it was and that's what we had to write in the text book.

Yes. And in school we spend a lot of time just, you know, using books just to make a little record of what we've done. Although, in school you will do quite a lot of practical stuff, I guess, in science.

Yes.

But when you come for parents evening, what we tend to look at is the books.

The books, definitely.

As though that's it.

That's the main thing, yeah.

It's really interesting. So let's talk a bit about homework, then. I'd like to understand what happens in your household and your family when you have homework. Presumably, Child D4, homework starts off as a sheet of something like that that a teacher has given you.

Yes.

And when you get home, it's in your bag. What happens next? How does it come out of the bag? Do you rush in through the door when you get home from school and put it on the table and start it?

It depends what subject really. I'm more keen to do the science and we have to write a story. It would be more likely for me to get that out first than having to write in the maths and literacy, because science is quite fun. When you think about something, it's better than maths where you have work something out or literacy you have to think of all the nouns and verbs, which is quite boring. No, normally it comes out.

We have a box, don't we, where we put all your school work.

Yes, we have a box and then we put it all in. So on Saturday I will do a bit and then on Sunday and stuff.

You don't get a lot of time during the week. That's the problem. We have scouts on a Monday and football on a Tuesday...

So sometimes it's left down to the last minute, or you've got to just rush everything and just put it in.

Not always. If we're quite strict at the weekend we can get it done but you don't tend to do a lot during the week.

No. Sometimes there's a bit or argument between when we do something. So a friend has just called and said 'Can you come out,' but then you've got to do homework.

Yes, that's not nice, is it?

No.

So, by and large, does he need nagging to do his work?

He doesn't need nagging. He knows he's got to do it, and he is good at knuckling down and doing some of it but he gives up very easily. At the first sum or something that he finds tricky, he'll say 'I'm not doing that now. I'm not in the mood for it,' or 'I'm too tired,' or 'I haven't got time to do it because I've...' He'll make an excuse not to do it, won't you?

Yes.

If you've looked at the first page and you don't like the look of it, and you know it's going to be difficult, I always think you make an excuse like 'Oh, I need a drink' or 'I haven't had anything to eat.'

Yes. Then sometimes when you say to your friend 'I'll be out in fifteen minutes' but it's past fifteen minutes, you'll rush it because you don't want to turn your friends down because then they will think 'Oh, he doesn't want to play with me.' So sometimes you have to rush it a bit. It's hard to squeeze it all in, and then you've got to remember when they need to be in by and what time. Then mum will say 'Have you done your science homework' and I'll say I've done it because it doesn't have to be in by Tuesday. It just gets quite a muddle sometimes when you have to do loads of different stuff with different times. We've got to do Mr R by Monday, science by Tuesday, and maths and English by Wednesday, and then you also have to do reading and spellings.

We fall out more on the literacy. Child D4 doesn't like me interfering because I go and see spelling mistakes or words that he could have used more descriptive words, and you get quite...

It drags some of it...

Only because it's going to take more time. He knows when I'm there trying to help him or correct him, he knows it's going to take longer, so therefore you don't like it. You say 'I don't like it when you help me' but it's only because it's going to take longer.

Yeah.

So when you say fallout, what happens?

Mum says 'you're doing it and that's final' and I say 'But what if I don't want to do it right now?' and then Dad will get involved and he'll start shouting and stuff. You'll have mum out in the garden doing something she wants to do, and dad will be sat watching the rugby in a sulk, and I'll be in my room playing on the Playstation.

Is that a good description?

That's great.

So that's what will normally happen.

Yeah, well...

But it's not every week.

It's occasionally.

Yeah. Let's try and get a sense of proportion on that.

This is probably once a month, I would say. This is if he gets something particularly challenging that he doesn't want to do. A few weeks can go by and it's all quite... you know, we've helped with science. In fact sometimes we have quite good fun because we look up things that we don't know, we get encyclopaedias or whatever, and we research stuff other times, mainly literacy, I would say.

Sometimes with the science, erm, because you'll get marked and your score will be read out in front of the other year sixes, it makes you want to be better, but then if it's in literacy or something, you think it's only the teacher that's going to be sort of marking it.

That's what you think, is it?

So I think sometimes when everyone is going to know you want to put yourself like you're quite good and you're capable of the stuff that's set out, but then sometimes when it's not read out and it's just marked by someone looking at it and thinking 'Yeah, that's right' it doesn't mean as much as if the teacher says 'this is going to get marked and all your scores are going to be read out.' It makes you want to do better because you think someone is going to read it out so I'm going to...

Try harder

So you take more time to do that than maths where your teacher is just going to mark it.

In science, and I think I tend to try harder because she said it in a maths test. I thought 'I've really got to do well' and the score turned out better to last time when she didn't tell us. So I think in a way it does make you do a bit better because you think it's going to be read out and I want all my friends to think 'Yeah, he's quite good.'

But you imagine what it must be like for the people that struggle, though

Yeah, but for the people that do struggle they just get sort of like 'I'm getting really worried. I don't want to do it, full stop. I don't even want to get to the point...'

So maybe it's not the same effect for the people that struggle, because the people that struggle might just not even bother trying because they might just know they are going to get a bad score. I was probably like one of those.

A bit of empathy there. Tell me about the work where the mark isn't going to be read out. So you've done a bit of maths homework or literacy homework. What happens to it when you bring it into school?

Erm, you bring it into school and the teacher has a maths and literacy pile. You put your book in the piles, then it will get marked. We have to give it in by Wednesday and she will give it out by Friday. She just gives out the books, and then you look and you will have a tick or cross by whatever. If you don't bring it in on time you get told off a bit.

Do you have a comment?

It's more in literacy or science that you have a comment. In maths, erm, they just say 'Well done. Learning objective achieved.' In literacy they write down 'Well done, Child D4. You could have improved more on the descriptive writing or you could have put in commas to make sentences' and stuff like that, but then in science it will probably be the same, something like 'Well done, you've achieved your level five,' which is good in something, and then that makes you think 'Oh, I can get a level five. I'll get it again next time.' Sometimes you have comments but it's not all the time.

Can you think of a piece of homework that you've done recently which you thought 'Yeah, I enjoyed that,' or you learnt something from it, or you thought 'Yeah, actually, that helped me remember something that I needed to try and remember?'

Yeah, we had a science paper that I did quite well in so I remember that. It was a few days ago.

What was that like?

We did it at home. It was set as a home task and we had forty-five minutes to do it. I think I enjoyed it because I found it quite easy, but if it was a maths paper and I didn't find it easy then I wouldn't enjoy it as much. I think if you're good at a subject, you find it quite easy and you think 'I'll do well,' but, yeah, I had... the science paper was one of the good ones that I had.

Okay. Can you tell me about another piece of homework that you've done recently?

What about that writing for that picture you did for Mr R?

Yeah, that one.

Tell me about that.

We got sent a picture home, and it was a picture of World War II, and it was, erm, it was a picture and there was houses in the background and loads of people, and they were cleaning up rubble and stuff, and you imagined it was from World War II from the bombings and stuff, and he sent us out and said 'What I want you to do is write a descriptive piece of writing within a hundred words, or around a hundred words, and it has to be descriptive.' So he sent it home and, erm, we did it, and then when we brought it back we had to read it out with the year sixes, and then he said 'I didn't think I quite got what I expected from you' because he wanted us to write similes and stuff like that, so we had to describe the dog was waiting for his owner obediently like a ball boy in tennis or something like that. That's what he was expecting.

Most children put 'I've seen this picture...'

A dog looking sad. I think sometimes the homework can be... they, they... In their head they think 'That's what I want to get from them' but they don't put it out clear enough for you to know what you have to do, and then you feel a bit disappointed. Sometimes it's clear and stuff but sometimes it's not as clear.

Sometimes you're unsure what you're expected to do. You come home and say 'I think this is what I've got to do.' It's like 'Is it what you've got to do?' 'I think that's what we need to do.' I sometimes do think that as adults we maybe expect children to understand directions that we find easy to understand and children don't quite get what we're asking them to achieve.

And then if your son comes home and isn't entirely sure, it makes it quite tricky for you to help.

It does, because all the time we're sort of wondering whether that is exactly what we had to do, and that was one of them I think. There has been a couple.

There's been a few.

A few poems and things like that, you know, it has come home with not clear... he's not clear about what we're going to do and there's nothing on top of the actual homework. They've got something and it hasn't said 'this is what you have to do' so even the parent doesn't know. They're really relying on what their child has told them, which is really frustrating, really frustrating.

In the homework with the picture where you had to do some writing, what were you learning from doing that?

Erm, I was learning that you can put in more information to describe something and you can use similes which will get much more marks than just

putting a descriptive piece like 'It waited as if it was sad' or something. If you put something else, it can sort of get you better marks than... Before most of the children just put something like what you would normally do, but, yeah, it's sort of... when he went through and told us what he expected, then he sort of thought 'Oh, I can do that,' and then he set us another piece of work and he said 'This is what I want you to do. That is the stuff I would like you to include and more description.'

So it was the discussion with the teacher in school after doing the homework that really helped you think 'Oh, yes, that's what I can see I can do better.'

Yes.

Okay. It's time for a more tricky question. Why is it you think schools set homework in primary schools?

Erm, well our teacher is always saying you have an hour a night or something in secondary school and they want to prepare you for that. I don't know. I think it's maybe for you to do better in your SATS and stuff. I find it quite difficult because in year three, four and five we didn't have much, and then all of sudden you get loads and you've got to do reading, and it comes as a big shock because you've never had that amount.

You've had a huge change within the home to accommodate year six, really. It has been massive, you know. We were not really expecting it. I'm quite laid back. I went to a school where we didn't have any homework, so I'm maybe not the best person because I do sometimes say 'Don't bother,' and Child D4 says 'Oh...' because he's too conscien... He's much more conscientious than I ever was.

I get worried the night before.

He gets really, really worried and anxious about it. I say 'Just say you didn't have time' and he's like 'No, I can't do that.' So I'm not the best person that... We have now managed to get on a sort of, you know, compromise slightly.

If you do your homework for an hour, you can go out for an hour and a half or play on your playstation.

Except for when you go off on your bike and you come back four hours later.

Yeah.

That doesn't leave you too much time for your homework, then.

No.

Yeah, in general... I guess they're setting homework so it consolidates what they have done during the day, but then sometimes it doesn't seem like that because the homework they have doesn't seem to have any relevance of what they've done during the day. I'll say 'You must know what you're doing because you must have done something like this in class, otherwise they wouldn't be setting homework' but it doesn't always follow. Sometimes it does, so I guess they are consolidating what they have already gone through, but other times it just seems to be randomly picked, which just seems a bit odd. Maybe a piece of work that they did three weeks ago and everybody scored quite low, so they're just bringing something back in. I don't know. I guess it's to consolidate stuff.

It sounds to me like it's quite a lot of work at this stage.

Yeah, because I also go to an extra maths tutor on Wednesday nights and I have homework from her. It's quite hard to fit it all in. I do it most of the times but it's just occasionally we have to do reading and we have to get three signatures. They sign it on a Wednesday and then by the next Wednesday you have to get three.

You get too stressed by it. You should just learn to just don't worry too much, Child D4.

You can't because then you get told off.

No, you don't. You just need to...

You do. You don't want to get told off because you think that's stupid because I could have got it over and done with and then not get told off.

But when you're doing it at half past nine at night, it's not really going to benefit you to just get a signature. It gets a signature but then it means you're later to bed and grumpier in the morning.

Then we have spellings, which I find quite a drag because I'm in group one out of four but I only got moved up to group one because I found group two average, but then when I moved up to group one it was like a really big step.

It's a bit hard for you now.

I always used to get tens in group two and nines, but now I'm getting sixes and sevens, and then I said to the teacher 'Can you move me down a group because I think the levels are...'

Because you want to be lazy.

Give me an easy life.

Yes.

You should have done what the other children do and make sure you didn't get ten every week, and then you wouldn't have been moved up. That's what some of them do. If you'd have been a bit cleverer then you would have flunked out on a few words and made sure you only got seven or eight, and then you could have stayed in group two.

You say all that but it's not very clever, is it?

What do you care?

Do you want a child who is not very clever. He got three in his tests.

You don't have to do that badly – just mediocre.

Judge it carefully.

At home we have a very different way of looking at homework.

Yes.

It's very good that Child D4 is like that, because if he wasn't like that then it would be disastrous because I don't think anything would get done really.

He seems to feel more pressure of it than you do.

Definitely.

Some other children... A few of my friends, erm, they said 'I haven't done my homework' like laughing, and I said 'It's not that funny, actually.'

It's because you worry about it, Child D4.

And then they get told off but they still laugh. You just think 'What's the point because it's your fault.'

You're just a different character. Last night we had parents evening and he asked his dad to bring home his homework because he had football practice after school and he'd left it. He didn't remember to bring it back, you see, so last night Child D4 was in, you know, in a real tizzy because he hadn't brought his homework folders home. So he was saying 'if they're left at school then they will still be at school in the morning so there's really nothing

to worry about.' You even wrote a note, didn't you, on a piece of paper on the floor in your bedroom.

No.

There was a note saying 'I'm really worried about my homework.'

That was from ages ago.

Yes. 'I'm really, really worried about something.' I know you worry about stuff, but you need to sort of, you know... It's going to be at school somewhere. It wouldn't have been lost.'

You get worried because you think when I go in there at school and it's not there...

It's good because you won't get too many detentions at secondary school if you're like that.

If it's not there then you get told off. I don't like getting told off.

That's good to be like that.

You get worried and then you ask the teacher 'Can I have some help' and they're not as what they would be if you hadn't got told off that five minutes before for not doing your homework or something.

The teachers are nicer, you mean.

If you hadn't got told off... There's one boy and he always does his homework and everything, but when he doesn't bring his homework in the teachers are a bit off with him, so sometimes you think 'I have to do it because if I'm stuck with something they're not going to be as helpful.' They will be helpful but they won't be as because they're a bit annoyed with you because you haven't done your homework or brought it in. It is, though.

That's fine, Child D4.

I think he's quite astute. He's quite an observer or human interactions there.

My friend didn't bring it in and the teacher wasn't helping her. She just said 'Write that down.' She was still being helpful but not as.

We're pretty much done now. Thank you. We've had a great session there. We could have done with another two minutes but that is fine.

Thank you very much. That has been really, really interesting. You're very good at expressing yourself, Child D4, which is absolutely great.

Thank you.