EARLY INTERVENTION IN LITERACY:
A STUDY OF IMPLEMENTATION IN SIX SCOTTISH PRIMARY SCHOOLS

Moira Leslie
PhD
The University of Edinburgh
2003
ABSTRACT OF THESIS

This investigation studied a cluster of six primary schools during a period when they undertook a classroom-based early intervention initiative aimed at raising literacy standards. The schools were situated in, or close to, an urban area of multi-disadvantage. The aim was to discover more about the impact of early intervention in literacy for socio-economically disadvantaged children; the process of school involvement in the intervention and participants’ experiences and perceptions of any change processes that took place. A mixed-method research design was employed where both quantitative and qualitative methodologies were used. The study was longitudinal in design. The sample numbered 665 children and 57 adult participants in total.

The intervention had the most positive impact for children tested on entry to Primary 2. During their first year at school the more socio-economically advantaged children were more likely than their less advantaged peers to have benefited from involvement in the intervention. It is possible that children needed to have reached a certain point in the continuum of literacy learning to benefit. It is likely that, this finding coupled with the differential on entry to school in terms of their baseline scores has important implications for the nature of literacy intervention at the Primary 1 stage. Small group and individual approaches facilitated by the recruitment of teams of personnel working within the classroom setting, an approach initiated by schools in this study, may be a strategy worthy of development and further research. The metacognitive process of ‘thinking about thinking’ (Jacob and Paris, 1987) was apparent in children’s accounts. A range of evidence suggests that the children had a developing understanding of the purpose of their literacy instruction and the benefits of learning to read and write: a finding that seems to contradict the conclusions of earlier studies.

There was evidence to suggest that aspects of multi-level change had taken place during the intervention. Some changes were planned for as part of the intervention, while others were unexpected, emerging as the dynamic of the intervention got underway. It seems that collaboration between a cluster of schools and external agents may be a particularly powerful combination that strengthens and supports individual headteacher’s capacity for initiating and implementing change. Schools had varied potential for this type of development work and there was an indication that this was positively linked to experiencing a ‘cycle of success’. Worthy of future research is a model of intervention that involves cluster activity and also acknowledges contextual differences amongst schools by offering differentiated approaches and teacher
support. There was evidence to suggest a particular emotional involvement for classteachers associated with the process of teaching reading. Teachers talking and exchanging and discussing their stories is a way that they seem to make sense of their beliefs and practices and a way that they develop their understandings. There is a need to allow time for this during interventions and there may be scope for making use of their 'stories' in the staff development component of interventions.
DECLARATION

This thesis has been composed by me and is entirely my own work. The publication arising from this thesis is included in the appendices. The joint author and the publishers of this publication have granted permission for this inclusion.

Moira Leslie
ACKNOWLEDGEMENTS

I would like to thank my supervisors Professor Pamela Munn, Helen Fraser, and Professor Lindsay Paterson for their advice and encouragement. They gave generously of their time and expertise, and their good humour throughout was a great support.

Special thanks must go to the headteachers, teachers and children who took part in the study. They also gave generously of their time during the research. In particular, I am grateful to the headteachers for allowing me access to their schools. Thanks are due to my colleagues at The University of Edinburgh for advice along the way. In particular, I would like to thank Linda Croxford, Paul O’Hara and Stephen Sharp. In the final weeks of the process Lesley Scullion’s computer skills were a great help. My thanks also to Greg McMillan, with whom I had the privilege to work on the Pilton Project. He inspired my interest in the study of early intervention.

On a personal note, I would like to thank my friends Andy, Linda, Nicky and Sally for their support and for reading the final draft of the thesis. Finally, special thanks to my husband Kenny Thomson for making sure that I had time to write and for his consistent encouragement.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>i</td>
</tr>
<tr>
<td>Declaration</td>
<td>ii</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>iii</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>iv</td>
</tr>
<tr>
<td>List of Tables</td>
<td>x</td>
</tr>
<tr>
<td>List of Figures</td>
<td>xii</td>
</tr>
<tr>
<td>Abbreviations and Specialised Terms</td>
<td>xiii</td>
</tr>
<tr>
<td><strong>Introduction</strong></td>
<td>1</td>
</tr>
<tr>
<td>Background to the Study</td>
<td>1</td>
</tr>
<tr>
<td>The Aims of the Research</td>
<td>2</td>
</tr>
<tr>
<td>The Outline of the Thesis</td>
<td>2</td>
</tr>
<tr>
<td><strong>1 Literature Review Part One - Early Intervention and the Prevention of Early Failure in the Acquisition of Literacy Skills</strong></td>
<td>4</td>
</tr>
<tr>
<td>Early Intervention: Why Is It Necessary?</td>
<td>5</td>
</tr>
<tr>
<td>1. An attempt to ameliorate the effects of socio-economic disadvantage</td>
<td>5</td>
</tr>
<tr>
<td>2. Achieving early success in the acquisition of literacy skills and the importance of the first years of schooling</td>
<td>7</td>
</tr>
<tr>
<td>Early Intervention: What have we learned?</td>
<td>10</td>
</tr>
<tr>
<td>Literacy skills commonly developed in intervention initiatives</td>
<td>10</td>
</tr>
<tr>
<td>One-To-One Tutoring</td>
<td>13</td>
</tr>
<tr>
<td>Time</td>
<td>14</td>
</tr>
<tr>
<td>Non-teaching support staff</td>
<td>14</td>
</tr>
<tr>
<td>Parental involvement</td>
<td>15</td>
</tr>
<tr>
<td>Reading with a partner</td>
<td>15</td>
</tr>
<tr>
<td>Comprehensive approaches to intervention</td>
<td>16</td>
</tr>
<tr>
<td>Whole School Approaches</td>
<td>16</td>
</tr>
<tr>
<td>Continuation</td>
<td>16</td>
</tr>
<tr>
<td>Class size</td>
<td>17</td>
</tr>
<tr>
<td>Resources</td>
<td>18</td>
</tr>
<tr>
<td>Pre-school</td>
<td>18</td>
</tr>
<tr>
<td>Other key findings</td>
<td>19</td>
</tr>
<tr>
<td>What has been happening?</td>
<td>19</td>
</tr>
<tr>
<td>Early intervention: the Scottish context</td>
<td>19</td>
</tr>
<tr>
<td><strong>Discussion</strong></td>
<td>22</td>
</tr>
<tr>
<td><strong>1 Literature Review Part Two - Early Literacy Intervention: What Can Be Learned From Other Knowledge Bases?</strong></td>
<td>25</td>
</tr>
<tr>
<td>School Improvement</td>
<td>25</td>
</tr>
<tr>
<td>Key Findings Relevant To Studies Of Early Literacy Intervention</td>
<td>31</td>
</tr>
<tr>
<td>Models of School Improvement</td>
<td>32</td>
</tr>
<tr>
<td>Programmes of School Improvement</td>
<td>34</td>
</tr>
</tbody>
</table>
Key Findings Relevant To Studies Of Early Literacy Intervention

The Change Process
   Phases of the Change Process
   Initiation
   Implementation
   Continuation
   Key Findings Relevant To Studies Of Early Literacy Intervention

Dimensions of Change: Multi-level Models
   Key Findings Relevant To Studies Of Early Literacy Intervention

Staff Development
   Key Findings Relevant To Studies Of Early Literacy Intervention

Wider Collaboration
   Cluster and Whole school

Outside Agents

Partnerships Between Schools and Universities
   Key Findings Relevant To Studies Of Early Literacy Intervention

The Role of the Headteacher
   Key Findings Relevant To Studies Of Early Literacy Intervention

Discussion

The Research Questions

2 Research Design and Methodology: Overview and Rationale

Design

Methodology

Participants
   Children
   Adults

Methods
   Data sets collected
   Bias
   Validity and Reliability
   Generalisability
   Ethical issues

3 The Early Intervention Programme used in the Study

Early Intervention Programme Planning Guidelines
   Staff Development
   Curriculum
   Resources
Community Links and Involvement of Other Agencies 74
Parental Involvement 74
Development of Learning Support Staff 75
Regular Review Meetings 75

4 The Initiation Phase 76

The Initiation Phase: Stage Three
Analysis of the data. 77
78

Stage 3 of the Initiation Phase: Primary 1-7 Classteachers' Perceptions 79
Category: Relevance of the Initiative to the Individual 79
Category: Readiness of the Individual 82
Category: Resources 88

Stage 3 of the Initiation Phase: Learning Support Teachers' Perceptions 88
Category: Relevance of the Initiative to the Individual 89
Category: Readiness of the Individual 90
Category: Resources 91

Headteachers' Perceptions During Stage 3 of the Initiation Phase 91
Category: Relevance of the Initiative to the Individual 91
Category: Readiness of the Individual 92
Category: Resources 94

Discussion 95

5 The Implementation Phase - Classteacher and Learning Support Teachers' Perceptions of the Impact of the Intervention 100

Classteachers' Interviews 100
Learning Support Teachers' Interviews 103

Main Categories Emerging from the Classteacher Interviews 103
1. Change in Practice 103
2. Impact on Children 104
3. Impact on Staff 104
4. Staff Development 104
5. Barriers to Implementation 104
Category: Change in Practice 105
Category: Impact on Children 113
Category: Impact on Staff 118
Category: Staff Development 121
Category: Obstacles to Implementation 123

Learning Support Teachers' Interviews 125
Category: Change in Practice 125
Category: Impact on Staff 126
Category: Impact on Children 127
Category: Staff Development 128
Category: The Way Forward 128
Category: Obstacles to Implementation 128
Category: The role of the headteacher 128
### 6 The Implementation Phase - Headteachers’ Perceptions Of The Impact Of The Intervention

**Headteachers’ Interviews**

Main Categories Emerging from the Headteacher Interviews

1. Impact on Headteachers
2. Change in Practice
3. Impact on Children
4. Impact on Staff
5. Staff Development
6. Evaluation/The Way Forward

#### Category: Impact on Headteachers

#### Category: Change in Practice

#### Category: Impact on Children

#### Category: Impact on Staff

#### Category: Staff Development

#### Category: Evaluation/The Way Forward

**Discussion**

- Structures and systems
- Headteacher level
- Child Level
- Teacher and classroom level

### 7 The Implementation Phase - Classteachers’ Diaries

**Using Diaries as a Method of Data Collection**

**Classteachers’ Diaries**

**Method**

- Participants
- Diary Design and Format
- Procedure
- Categorising the Data

**Findings from Classteachers’ Diaries**

- Category: The Project Recommendations
- Category: Impact on Children and Teachers

**Classteacher Presentations**

**Discussion**

- Level of Structures and Systems
8 The Implementation Phase - Children's Perceptions of the Reading and Writing Process and Experiences of Literacy Learning During the Intervention

Researching Children’s Perceptions of the Reading and Writing Process

Methodology Used in the Study To Explore Children’s Perceptions of The Reading and Writing Process and their Learning Experiences

Design and Procedure

Sample

Data Analysis

Conversations with Children
  Category: Strategies Discussed
  Category: Children’s Perceptions of, and Explanations for any Differences in their Literacy Ability at Nursery and Primary School.
  Category: Children’s Concepts of Reading and Writing

Discussion

9 The Implementation And Continuation Phase - Children's Literacy Attainment and Progress

Design

Measures and Procedure
1. The Burt Word Reading Test (SCRE, 1976)
3. The Burt Inglis Spelling Test (n.d.)

Data analysis
Pupil level
School level
Investigation 1: A comparison of the intervention children with a similar group of control children.

Participants

Results
Investigation 1
1. The cluster of six schools
2. The individual schools in the sample
3. The sample divided into two groups according to SES status
Group1: High Free Meal Entitlement schools
Group 2: Lower Free Meal Entitlement schools
Personal FME Entitlement
Investigation 2: An examination of the factors affecting children’s progress and attainment in literacy during the intervention.
Pupil level
School level
Factors affecting literacy attainment on entry to Primary 1.
Factors affecting progress and attainment
The differential progress for FME children in the first year of schooling
School differences in children’s literacy progress during the intervention

Discussion

10 The Continuation Phase - Participants’ Perceptions Of The Impact Of
The Intervention. The Questionnaire Survey

Distribution and Return of Questionnaires
Survey Response Rate
Total Issued
Framework for Data Analysis

The Questionnaire Findings
Availability of Support in the Classroom
Learning Support Provision
Nursery Nurse Provision and Availability of Promoted Staff
Advantages and Disadvantages of Other Adults Working in the Classroom
Parental Involvement

Changes to Practice
Time Spent on the Project’s Recommendations for Literacy Teaching
The Most Effective Recommendation
The Most Successful Resources
Change of Views about How to Teach Reading
Change of Views About How to Teach Writing
Impact of the Project on Primary 1-3 Children’s Progress in Reading, Writing and Print Awareness
Unexpected Outcomes
Value of Staff development Sessions for Primary 4-7 Teachers

Further Input on Early Literacy

Discussion

11 Summary and Conclusions

Cluster Level

School Level

Teacher Level
Theories and Beliefs
The ‘Human Side’ of Change
Learning Support Teachers
Teachers’ Practice

Child Level

Wider Implications of the Findings
Appendices
Appendix 1 A1
Appendix 2 A2
Appendix 3 A4
Appendix 4 A5
Appendix 5 A15
Appendix 6 A17
Appendix 7 A27
Appendix 8 A28
Appendix 9 A30
Appendix 10 A31
Appendix 11 A34
Appendix 12 A38
Appendix 13 A59
Appendix 14 A61
LIST OF TABLES

Table 2.1: School Characteristics 61
Table 2.2: The sample of adult participants in the study 63
Table 2.3 The longitudinal pattern of data gathering; it indicates the time scale and highlights when the different methods were used. 65
Table 4.1: Category: Relevance of the Initiative to the Individual. Primary 1-7 Classteachers’ statements 79
Table 4.2: Relevance of the Initiative to the Individual. Primary 1-7 Classteachers’ Perceptions 79
Table 4.3: Category: Readiness of the Individual. Primary 1-7 Classteachers’ Statements 82
Table 4.4: Readiness of the Individual: Primary 1-7 Classteachers’ Perceptions 83
Table 4.5: Percentage of Primary 1-7 classteachers’ evaluation forms that included a written response to Question 5: What personal action do you envisage arising from this in-service? 84
Table 4.6: Primary 1-7 Classteachers’ Responses to Question 5 85
Table 7.1: Number of Primary 1-3 Classteachers who kept a diary 173
Table 9.1: Pearson Correlations between the literacy measures 232
Table 9.2: Number of children in the sample: Primary 2 - 4 236
Table 9.3: Burt Word Reading Test (BRT) Scores Across the cluster: all six schools in the study 238
Table 9.4: Comparison of Control and Intervention Mean Burt Inglis Spelling Test (BI) Scores Across the cluster: All six schools in the study. 239
Table 9.5: Comparison of (95) Control and (96) Intervention Mean Alphabet Test Scores. Across the cluster: all six schools in the study. 240
Table 9.6: Comparison of Control and Intervention Mean Burt Word Reading Test (BRT) Scores for each School in the Study 241
Table 9.7: Comparison of Control and Intervention Mean Burt Inglis (BI) Spelling Test Scores For each School in the Study 244
Table 9.8: 1995/96 and 1996/97 Mean Percentage Free Meal Entitlement for the six schools in the study and the local authority they serve. 247
Table 9.9: Comparison of Control and Intervention Mean Burt Word Reading Test (BRT) Scores. Group 1: The four schools with highest Free Meal Entitlement in the study 248
Table 9.10: Comparison of Control and Intervention Mean Burt Word Reading Test (BRT) Scores. Group 2: The two schools with the lowest Free Meal Entitlement in the study 248
Table 9.11: Comparison of Control and Intervention Mean Burt Inglis Spelling Test (BI) Scores. Group 1: The four schools with highest Free Meal Entitlement in the study 249
Table 9.12: Primary 2 Mean Burt Word Reading Test Scores (and standard deviations) for (95) Control and (96) Intervention Group by Free Meal Entitlement 251
Table 9.13: Primary 2 Mean BRT Scores: Group 1 (high FME) and Group 2 (low FME) 254
Table 9.14: Number of children at each stage who had follow-up data after 12 and 36 months 258
Table 9.15: Factors predicting literacy score at pre-test on entry to Primary 1 260
Table 9.16: Predictive factors from entry to Primary 1 to entry to Primary 2 during the first year of intervention: pre-test to first follow-up 262
Table 9.17: Predictive factors from entry to Primary 2 to entry to Primary 4: first follow-up to second follow-up 263
Table 9.18: Predictive factors from entry to Primary 1 to entry to Primary 4: pre-test to second follow-up 264
Table 9.19: Factors predicting literacy score on entry to Primary 2 in 1996 for children who had taken part in the intervention during their first year at school 267
Table 9.20: Factors predicting literacy score on entry to Primary 2 in 1995 for the control group who had not taken part in the intervention during their first year at school.

Table 9.21: The difference in literacy progress (with all other variables held constant) between children in School 3 and children in the other schools in the study. Entry to Primary 1 to entry to Primary 2: pre-test to first follow-up.

Table 9.22: The difference in literacy progress (with all other variables held constant) between children in School 3 and children in the other Schools in the study. Entry to Primary 2 to entry to Primary 4: first follow-up to second follow-up.

Table 9.23: The difference in literacy progress (with all other variables held constant) between children in School 3 and children in the other Schools in the study. Entry to Primary 1 to entry to Primary 4: pre-test to second follow-up.

Table 10.1: Summary of questionnaire returns.

Table 10.2: Class teachers' perceptions of the year when they had most extra adult support in class.

Table 10.3: Adult support in class at P1-3 stage: mean number of hours in class per week.

Table 10.4: Adult support in class at P4-7 stage: mean number of hours in class per week.

Table 10.5: Availability of learning support provision in P1-3 classes.

Table 10.6: Availability of learning support provision in P4-7 classes.

Table 10.7: Nursery nurse provision in P1-3 classes.

Table 10.8: Assistance by promoted staff in P1-3 classes.

Table 10.9: Assistance by promoted staff in P4-7 classes.

Table 10.10: The three main benefits of having other adults working in the Primary 1-3 classrooms.

Table 10.11: The three main disadvantages of having other adults working in the classroom.

Table 10.12: Recommendations for literacy teaching identified by teachers of P1-3 as being 'new' to their classroom practice with children at this stage.

Table 10.13: Other changes in practice identified by Primary 1-3 teachers.

Table 10.14: Changes in organisation of the day resulting from involvement in the project.

Table 10.15: Recommendations for literacy teaching identified by teachers of P4-7 as being 'new' to their classroom practice with children at this stage.

Table 10.16: Primary 1-3 teachers' perceptions of the amount of time spent on the intervention's recommendations for literacy teaching, compared to the time spent before the start of the project.

Table 10.17: Changes in Primary 1-3 teachers' views about how to teach reading.

Table 10.18: Primary 1-3 teachers' perceptions of children's progress.

Table 10.19: Primary 4-7 teachers' perceptions of children's progress.

Table 10.20: Learning Support teachers' perceptions of children's progress.

Table 10.21: Unexpected outcomes reported by Primary 1-3 class teachers.
LIST OF FIGURES

Figure 9.1 Primary 2 Mean Scores of Children with Free Meal Entitlement and No Free Meal Entitlement: a comparison of 95 control and 96 intervention. 252

Figure 9.2 Primary 2 Mean BRT Scores. Group 1 (high FME) and Group 2 (low FME). 255

Figure 9.3 A comparison of the average progress and attainment made by children with free meal entitlement and no free meal entitlement from entry Primary 1 through entry Primary 2 and through entry Primary 4. 265
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FME</td>
<td>Free Meal Entitlement</td>
</tr>
<tr>
<td>SES</td>
<td>Socio-Economic Status</td>
</tr>
<tr>
<td>The early years</td>
<td>Primary 1-3</td>
</tr>
<tr>
<td>The upper years</td>
<td>Primary 4-7</td>
</tr>
<tr>
<td>Infant stages</td>
<td>Primary 1-3</td>
</tr>
</tbody>
</table>
INTRODUCTION

Background to the Study

This three year longitudinal research project studied six primary schools during a period when they undertook an early intervention initiative aimed at raising literacy standards. The six primary schools were members of a local authority school cluster group. The cluster of schools was situated in an urban area of multi-disadvantage. In four of the study schools between 80% and 90% of the children had free meal entitlement.

Working together on development planning the six schools had identified the need to implement early intervention strategies to prevent literacy failure. The headteachers of the schools reported that there were extreme differences in the levels of literacy attainment between children attending schools in this cluster compared with children in more advantaged areas of the city.

The cluster group’s decision to implement a literacy intervention pre-dated the government funded Early Intervention Programme launched in Scotland in 1997 (SOEID, 1998) and the introduction of the national target setting and standards agenda (SOEID 1998). However, developments at that time in the schools’ local authority reflected the high profile that literacy was to have on the national scene over the coming years. At local authority level, the education department had issued policy documents on the teaching of reading for the first time (LRC, 1995a, 1995b); and the Pilton Early Intervention Project, aimed at raising literacy standards, was underway in schools situated in an urban area of multiple disadvantage similar to that of the schools in this study (McMillan, 1994).

No start-up grant was available and headteachers used their allocated school budget to finance the implementation. This was a classroom-based literacy intervention (see Chapter 3). Although the main focus was the early stages of schooling, the cluster adopted a whole-school approach that involved teachers at all stages of the primary school in the planning, initiation and associated staff development sessions.
The Aims of the Research

The literature reviewed in the next chapter identifies the importance of discovering more about the impact of early intervention in literacy for socio-economically disadvantaged children. Also emphasised is the need to discover more about the perceptions of those implementing improvement interventions, and the impact that involvement in the process of change has on the school and classroom practice, over time. The context described above, in which a cluster of six schools implemented an intervention project, offered the opportunity to study these issues at close quarters.

The aims of the research were to:

- discover more about the impact of early intervention in literacy on socio-economically disadvantaged children;
- explore the broad impact of the intervention by adopting a broad approach to evaluation that included the measurable impact of the intervention on pupil attainment and factors predicting progress, and also the qualitative perceptions of the participants involved in the implementation;
- scrutinise the multi-level impact of involvement in the intervention at cluster, school, teacher and pupil levels;
- investigate any change processes and outcomes over time by including a longitudinal dimension to the study: gathering data from children over three years and from school staff over two years.

The Outline of the Thesis

There are eleven chapters in the thesis. These are:

Chapter 1: This chapter is divided into two parts. The first reviews the literature on early intervention and the prevention of early failure in the acquisition of literacy skills. It examines why early intervention is necessary, the different approaches adopted, and sets the Scottish context for this study. The second part of the chapter places early intervention in the wider context of the developing knowledge bases on school improvement and the management of change.
Chapter 2: This chapter offers an overview and rationale for the research design and methodology.

Chapter 3: Here the early intervention programme, implemented by the schools, is described.

Chapter 4: This chapter explores participants’ perceptions during the initiation phase of the intervention.

Chapter 5 and Chapter 6: These chapters investigate participants’ experiences during the implementation phase of the intervention. It offers their perceptions of the impact of the intervention at the end of the first school session.

Chapter 7: In this chapter the findings from the class teachers’ diaries are presented and discussed. The diaries were written during the first year of implementation and detail the ongoing experiences of participants over time.

Chapter 8: Children’s perceptions of the reading and writing process and their experiences of literacy learning during the intervention are studied in this chapter. This was not part of the original design, however unexpected themes emerging from other data sets prompted this additional investigation.

Chapter 9: This chapter offers a statistical analysis of the measurable impact of the intervention on pupil attainment and identifies factors predicting progress during the intervention.

Chapter 10: The data discussed in this chapter was gathered in the second year of the project. It explores the perceptions of all the teaching target population as they entered the continuation phase and offers an overview of the impact of the intervention across the cluster.

Chapter 11: This chapter summaries the major findings that have been discussed at the end of each of the preceding chapters, offers conclusions and draws out implications for policy, practice and future research.
CHAPTER 1

LITERATURE REVIEW

PART ONE
EARLY INTERVENTION AND THE PREVENTION OF EARLY FAILURE IN THE ACQUISITION OF LITERACY SKILLS

The rationale of early childhood intervention is not new and its contemporary framework has evolved from a wide range of perspectives (Shonkoff and Meisels, 1990). Recent decades have seen rapid developments in its transformation into practice through a range of educational programmes, and other systems of delivery. This has been supported by the growing base of empirical knowledge available to researchers and policymakers (Richmond and Ayoub, 1993; Farren, 1990). A major thrust of early intervention projects worldwide, has been to ameliorate the effects of disadvantage. Over the last two decades, key developments have been programmes aimed at preventing early failure in the acquisition of literacy skills of socio-economically, disadvantaged children. The particular concern of this literature review is approaches to early intervention that focus on the development of literacy acquisition.

The impact which social disadvantage can have on educational attainment is widely acknowledged (Tizzard et al, 1988; Paterson, 1991; Garner and Raudenbush, 1991; Mortimore and Whitty, 1997); and, specifically, underachievement in the area of literacy skills is well documented (Davie et al., 1972; Wedge and Prosser, 1973; Fogelman and Goldstein, 1976; Newson and Newson, 1977; Hannon and McNally, 1986; Osborn and Milbank, 1987). In recent years, there has been a marked increase in interest from policymakers, as well as an increase in funding for the implementation of interventions aimed at developing the early literacy skills of children who are identified as being at-risk because of socio-economic factors.

An effective strategy to prevent early literacy failure must operate on two fronts: prevention and early intervention. This added focus on the prevention of difficulties from emerging in the first place, concentrates attention on the need to examine research findings that will provide insights about effective methodologies for literacy teaching. Slavin and Madden (1993:279) stress that 'both early intervention and improvement in classroom practice are needed'. A comprehensive
strategy that includes policymakers, researchers and practitioners working together is needed to achieve this goal.

While supporting the case for early intervention, Zigler (1990: p.x) emphasises the need to understand, and take account of, the continuity of human development. Rather than debates about when to intervene, the focus should be on finding the right intervention for each age. He emphasises the dangers of providing support at only one stage and recommends an optimal intervention which would ‘consist of a series of interfacing interventions over the life of the child.’

**Early Intervention: Why Is It Necessary?**

From a review of the literature three key themes emerge that help to answer this question. These are discussed in the next section of this chapter.

1. *An attempt to ameliorate the effects of socio-economic disadvantage*

While intervention projects have a part to play in tackling underachievement attributed to, or caused by the effects of socio-economic disadvantage, there is agreement that educational disadvantage linked to poverty remains highly resistant to change (Zigler, 1990; Nisbet and Watt 1994; Mortimore, 1997).

The relative nature of the concept of social disadvantage creates difficulties when searching for a precise definition of the term. Mortimore and Blackstone (1982) describe it as ‘tied to the social context of time and place.’ Nisbet and Watt (1994) posit that explaining it in terms of ‘lacking what others in a society take for granted’ is the only available agreed definition. Oppenheim (1993) defines it as ‘when people are excluded from participating in the accepted way of life in the society in which they live because of the low level of their resources’ (p. viii).

Whatever the precise definition, there is general agreement amongst commentators that the cumulative effects of social disadvantage are likely to impact on both children’s educational opportunities and their development as effective school learners (Mortimore and Whitty, 1997). Particularly emphasised, is the cumulative negative impact on later learning capacity if the child misses out on, or does not master, the early stages in learning to read (Nisbet and Watt, 1994).
There is a highly complex interrelationship amongst the factors impacting on educational disadvantage. Using multi-level analysis, Paterson (1991) examined socio-economic status (SES) and educational attainment. Findings show that SES is an important correlate of attainment over and above ability, and the SES mix of the school has an effect on attainment over and above individual or family SES. Another study (Garner and Raudenbush, 1991) using this type of multi-level analysis, which examined neighbourhood effects on educational attainment, found that after controlling for pupil ability, family background and schooling, there was a significant negative association between deprivation in the home neighbourhood and educational attainment. This challenges traditional views of attainment being determined solely by the individual, family background, and school effects, and points also to the wider socio-economic structure of the neighbourhood as an important variable.

Wide-ranging reports by Nisbet and Watt (1984; 1994) emphasise both the strong interrelationship between educational disadvantage and poverty and the difficulties in breaking this connection. Offering an historical perspective on approaches to dealing with educational disadvantage in Scotland, they state that during the 1960s and 1970s education was regarded as a means of overcoming the inequalities resulting from poverty and as a potentially effective instrument of social change. By the mid 1980s they claim that there was disenchantment with this perspective and a marginal role was assigned to education in intervention programmes. However, a decade later Nisbet and Watt argue that yet another viewpoint emerged which acknowledged that education was only one of many factors in deprivation. By the mid 1990s the idealism of the 1960s had given way to a more ‘realistic’ approach to dealing with educational disadvantage linked to social conditions. While, once again, education is recognised as having a role to play, it is now viewed as one strand in multi-disciplinary approaches to tackling educational disadvantage.

After twenty years of study, Nisbet and Watt (1994) identify three common strategies which intervention programmes have attempted to integrate, with education having a part to play in each:

1. investing more resources in disadvantaged areas;
2. developing new approaches for strengthening home school links, supporting local action or co-operating with other agencies; and
3. working to change attitudes and developing a changed ethos.

Commentators recommend that specific aims are identified at the outset and there is growing consensus about the benefits of adopting a systematic, focused approach to intervention (Shonkoff and Meisels, 1990; OFSTED, 1993; Stoll 1999).

2. Achieving early success in the acquisition of literacy skills and the importance of the first years of schooling
Many educationalists highlight the expectation which children, regardless of social class and other factors, have about coming to school and successfully learning to read. (Entwisle and Hayduk, 1982; Slavin et al., 1992; Slavin and Madden, 1993). However, by the end of the first year of schooling many children will already recognise that they are failing compared to some of their peers. This may result in a loss of motivation and enthusiasm for the task (Guthrie and Wigfield, 2000) and loss of self-esteem and decreasing expectation that they will learn to read (Clay, 1991). Moreover, the interplay between these early affective and cognitive outcomes may result in children experiencing a disadvantage in all future learning (Entwisle and Hayduck, 1982; Slavin, 1996). Continued difficulties with reading will almost certainly create problems in accessing other areas of the curriculum.

Although achieving success at the early stages of schooling does not guarantee success at the later stages and beyond, it is argued that early failure virtually guarantees failure in later school life (Slavin et al., 1992). Concurring with this viewpoint, Butkowsky and Willows (1980:419) posit that children experiencing reading difficulties ‘may display an eroding motivation in achievement situations that increase the probability of future failure’.

A comparison of three studies (Juel, 1988) from the United States, New Zealand, and Sweden (where reading instruction begins at age 5, 6 and 7, respectively) seems to confirm the critical nature of early success in reading. This leads Juel to propose that, while not definitive, the findings ‘suggest that despite age of school entry, method of instruction, or language, a child who does poorly in reading in the first grade is likely to continue to do poorly.’ (p.444)
Studies of readers in their first year of schooling have found that poor readers are exposed to significantly less print (Biemiller, 1977/1978; Allington, 1983). Volume of reading experience is linked to the development of reading skills, particularly the development of vocabulary knowledge (Nagy and Anderson, 1985) phonological awareness, phonemic awareness (Bradley and Bryant, 1983; Ball and Blanchman, 1991; Byrne and Fielding-Barnsley, 1991) and using analogies (Goswami, 1985; Goswami and Bryant, 1990). These are all abilities important in learning to read, but they are also developed by reading. This evidence leads Stanovich (1986) to advance the argument of the ‘Matthew effect in reading’, whereby, the ‘rich get richer while the poor get poorer’. He claims that the exponential, rather than linear increases in these skills, highlights the importance of early success in reading.

The specific educational importance of the first years of schooling is highlighted (Pederson et al., 1978; Meyer, 1984). With Entwisle and Hayduk (1982:137) suggesting that, ‘the early grades may be precisely the times that schools have their strongest effects...’. Tizard and her colleagues (1988) argue that findings from their study of young children attending inner city schools in England demonstrate that the reception year (age five/six) is an important time for providing low-achieving children with specialist intervention. Other studies confirm these general findings (Pederson, Faucher and Eaton, 1978; Becker and Gersten, 1982; Meyer, 1984; Slavin and Madden, 1989).

Slavin (1996) speculates that students will fare better if they succeed the first time they are taught. He believes that this should be the goal for all children who are at-risk of failing, and argues that this can be achieved by implementing powerful programmes of prevention and intervention. Indeed, evidence suggests that preventing early literacy failure is more effective than attempting to offer remediation at a later date (Wasik and Slavin, 1993; Sylva and Hurry, 1995; Campbell and Taylor, 1996; Juel, 1988). The average beginner reader makes significant progress during the first two years of schooling and a child who falls behind at the early stages is likely to have great difficulty in catching up with peers at a later stage. Early intervention for children who are experiencing difficulty in learning to read will, therefore, be crucial to their later success (Clay, 1979).
This increasing awareness of the need for early identification and support for children who are making a slow start to reading and writing has resulted in learning support provision being made available as early as the first year of schooling. This practice, nevertheless, is still not widespread, as confirmed by the findings of the Task Force on Underachievement in Scottish Schools (SOEID, 1996:10): ‘learning support staff in primary schools are not always involved early enough with the youngest children to ensure that they make good initial progress in reading and number’.

A range of explanations are offered for the practice of waiting before intervening. These include: not wishing to pressure children; the need for a settling in period; and teachers not understanding the reading process sufficiently well to identify children having difficulty (Clay, 1993). Another reason offered by Sylva and Hurry (1995b) is that standardised reading tests are not appropriate for use in the first few years of school when children may well be virtually non-readers. However, as they point out, tests that can assess children’s skills of concepts of print, phonological awareness and alphabetic knowledge can be used. These are strong predictors of later reading success (Bryant and Bradley, 1985; Clay, 1985; Bryant et al., 1989; Adams, 1990). A combination of teachers’ professional judgement and standardised measures may facilitate early identification of children who are likely to experience difficulties.

Evidence points to these early years of schooling as the optimum time for implementing intensive preventative and intervention strategies, rather than attempting to offer remediation at a later date. Marie Clay (1995), advocating early intervention, comments that in the past ‘the longer we left the child failing the harder the problem became.’

3. Cost Effective in the Long-term?
Early intervention programmes are expensive to implement, however there is a range of empirical evidence to suggest that they can be cost effective and a sound economic investment in the long-term (Schweinhart and Weikart, 1986, 1993; Barnett and Escobar, 1987, 1990; Schweinhart, 1992; Brooks et al., 1998).

Commentators propose that the high cost of intervention projects can be justified if it reduces the need for remedial education in later schooling (Barnett and Escobar, 1987). Since taxpayers
then emerge as the primary beneficiaries of intervention projects, it is argued that they should regard these programmes as an investment and finance the cost (Berrueta-Clement et al., 1984).

Hurry and Sylva. (1997) believe that children experiencing difficulties in acquiring literacy skills will be expensive to educate regardless of whether they are offered the available school support, or are part of an intervention programme. They argue that this must be considered when assessing the cost of programmes, many of which, they claim, are not substantially more expensive than the standard school provision and can offer better value for money.

In terms of achieving cost reduction, there is a recommendation for practical experiment and research for low cost intervention programmes that have shown some evidence of success (Barnett and Escobar, 1990); and a need to discover which intervention strategies are most effective in raising levels of attainment and most enduring over time (Schweinhart and Weikart, 1993).

Despite the, at present, conflicting evidence as to whether investment in intervention strategies does result in lasting and cumulative gains, there is widespread acceptance that a commitment to financing intervention projects can result in long term benefits for individuals and society and that there is a moral obligation to promote this area of research (Berrueta-Clement et al., 1984; Zigler, 1990).

**Early Intervention: What have we learned?**

A vast range of literacy early intervention programmes have been implemented, that have adopted different approaches. The next part of the chapter identifies key themes emerging from a review of the literature on literacy interventions.

*Literacy skills commonly developed in intervention initiatives*

In different literacy interventions the focus for skill development varies. Some interventions are designed to heighten one or two key areas of literacy development, while others adopt a more comprehensive approach. The key areas identified, include developing: phonological awareness; phonemic awareness and a knowledge of the alphabet system; writing to promote phonemic awareness; an awareness of rime, onset and analogy; a familiarity with high frequency words;
concepts about print; fluent and fast paced reading; comprehension skills; and metacognitive awareness. Studies have shown that all these skills have a part to play in the acquisition of literacy. A brief summary of some of the skills most commonly developed in literacy early interventions follows.

Since the early 1970s there has been a growing interest in the area of phonological awareness: the ability to attend to, and manipulate the sounds in spoken words. In many cases the causes of specific difficulties in reading are related to deficiencies in phonological processing skills (Frith, 1985; Stanovich, 1986; Bryant et al., 1989; Goswami and Bryant, 1990). A body of evidence shows that the link between phonological awareness and learning to read and spell is particularly robust (Bradley and Bryant, 1983; Lundberg et al., 1988; Byrne and Fielding-Barnsley, 1991; Ball et al., 1991). It is a strong predictor of future reading performance and is linked with reading success (Vellutino and Scanlon, 1987; Juel, 1991; Snowling et al., 1996). There is evidence that this powerful relationship can not be explained in terms of social class differences, and the relationship also remains strong even when the effects of differences in intelligence are removed (Stuart and Coltheart, 1988).

Interventions that have focused on only introducing training in phonological awareness have demonstrated that this can have an impact (Lundberg, 1994). This approach may benefit children with the lowest phonological skills and be particularly beneficial for children at risk because of socio-economic disadvantage (Snow et al., 1998).

Phonological awareness is central to an understanding of the alphabetic principle: an understanding that phonemes, the smallest speech segments, are more or less represented by letters. There is a strong association between phonemic awareness and reading ability (Ehri and Wilce, 1985; Perfetti et al., 1987; Rieben and Perfetti, 1991; Gough et al., 1992).

For children at risk of literacy failure, exposure to training aimed at heightening both phonological and phonemic awareness has been found to be the most effective. Teaching that involves highly explicit and intensive instruction that draws children’s attention to the phonological structure of words, combined with teaching about the alphabetic principle that emphasises the connection between letters and phonemes, has been found to be successful in
promoting early reading and spelling acquisition (Bradley and Bryant, 1983; Stanovich, 1986; Adams, 1990; Cunningham, 1990; Ehri, 1991; Vellutino, 1991; Torgesen et al., 1992; McGuiness et al., 1995). This combined approach is believed to increase the efficacy of interventions. For example, while Reading Recovery does include training in phoneme-to-letter correspondences there has been criticism of its lack of systematic teaching of phonological awareness and phonological recoding (Center et al., 1992). Studies using a modified Reading Recovery programme that incorporated explicit instruction in these skills (based on the work of Bradley and Bryant, 1983) were found to be more effective than the standard Reading Recovery Programme (Iverson and Tunmer, 1993; Hatcher et al., 1994).

Approaches that encourage children to write independently and to attempt to spell words have helped to develop phonemic awareness, sound/letter spelling relationships and can assist children in learning to read (Bissex, 1980; Adams, 1990; Saracho, 1990; Treiman, 1993). Evidence suggests that 'some children seem to move into reading through the act of writing' (Fox and Saracho, 1990:88). It is recommended that the reciprocal links between reading and writing are highlighted and that children are encouraged to discuss these links (Clay, 1991). Interventions that include play contexts, where the use of print related resources and writing materials are an integral part of the play, have encouraged children to demonstrate and develop their understanding of the purpose of writing (Vukelich, 1990; Morrow and Rand, 1991; Neuman and Roskos, 1992; Hall and Robinson, 1995).

Programmes that promote phonological skills by focusing on the development of an awareness of rime, onset and analogies between words have also been found to be effective in promoting early reading and spelling acquisition (Goswami, 1986, 1990; Goswami and Bryant, 1990; Treiman and Zukowski, 1996).

Instruction aimed at developing concepts about print, which includes promoting understanding of the conventions of print and the technical vocabulary of literacy (Clay, 1985; 1991; 1993; Stanovich and West, 1989), has been used in interventions aimed particularly at socio-economically disadvantaged children (Snow et al., 1998). Encouraging the development of a basic sight vocabulary of high frequency words has been used successfully in a range of studies (McMillan, 1996, 1997; Gibb, 1998; Leslie and McMillan, 1999). The importance of children
linking this to their alphabetic knowledge, phonological awareness and developing understanding of reading and writing by analogy is highlighted by Ehri (1995) who believes that this connection forming process is at the heart of all sight word reading.

Interventions that focus specifically on heightening comprehension skills are not so frequent in the literature, however, studies have shown that these skills can be developed by targeted, focused intervention (Miller, 1985; Elliot-Faust and Pressley, 1986; Brooks et al., 1998). This approach often focuses on developing children’s metacognitive awareness (Brown, 1980; Paris et al., 1984; Paris and Jacobs, 1984; Garner, 1987; Paris et al., 1991).

One-To-One Tutoring.
Slavin and his colleagues (1992) suggest that the most effective of all intervention strategies is one-to-one tutoring with at-risk first graders. However they state that ‘simply using tutors for one-to-one teaching is not enough, the content of the programme and the quality and form of instruction may also be important variables, as well as the increase in time spent.’ Pinnell and her colleagues (1994) also present evidence that only providing one-to-one tuition is not the answer. They highlight the importance of instructional emphasis and teacher development as necessary factors in any successful intervention. While concurring with the view that one-to-one teaching is not enough to improve children’s reading, Hurry (1996:96) believes that ‘it may be a necessary factor in any successful attempt to help children who are struggling with reading.’ Slavin and his colleagues (1992/93) recommend intensive intervention in the form of one-to-one tutoring in the first year at school, followed by high-quality instruction in subsequent years.

Reading Recovery (Clay 1993) is one of the most widespread approaches to one-to one instruction. It is a preventative early intervention programme for children who are in the bottom 20% of the class after one year of schooling. Each child has an intensive programme of daily instruction which supplements the regular classroom activities. Although fade-out effect over time has been noted (Sylva and Hurry, 1997) in the short term, many studies have highlighted the effectiveness of Reading Recovery, with children making substantial gains compared to the controls (Clay, 1993; Wasik and Slavin 1993; Pinnell et al 1994; Sylva and Hurry 1995(b)). Moreover, studies that compared the effectiveness of Reading Recovery with other one-to-one
tutoring methods showed that Reading Recovery was more effective (Slavin et al., 1992; Pinnell et al., 1994).

**Time**

Time on task is a crucial factor in literacy acquisition. In the early years of schooling the amount of time spent on supervised reading is closely connected with progress. It seems that the more practice children get at reading the better they become (Stallings, 1976; Clay, 1979; Juel, 1991).

However, it may be that the critical variable is not just the increase in time by itself, but the quality of instruction during that additional time (Allington, 1983; Wasik and Slavin, 1993; Pinnel et al., 1994; Slavin; 1997). In Reading Recovery, as well as the quality of delivery, the frequency of instruction rather than the amount of time is seen as a crucial factor: the daily sessions are designed to ensure that children remember and build on previous learning (Clay 1993).

Whatever the precise factors related to this issue of time, Hurry (1996) emphasises that there is no available evidence for effective reading interventions that have not involved substantial amounts of extra instruction.

**Non-teaching support staff**

The deployment of non-teaching support staff is a common strategy in intervention initiatives (McMillan, 1997; Gibb, 1998; Fraser et al., 2001). However in a major statewide study in Tennessee, Slavin and his colleagues, (1992/3:14) found little impact on attainment of deploying aides to classes of twenty-five pupils in the first four years of school.

Studies undertaken in Scotland that measured teachers’ perceptions of the wider impact of non-teaching support staff offered a more positive outcome. The deployment of qualified nursery nurses in early years classrooms was one strategy used in the Pilton Study with the aim of increasing the amount of time the children spent reading (McMillan, 1995). The evaluation noted that the role of the nursery nurses was viewed by all participating teachers to be the main strength of the project (Fraser, 1996). Similar findings emerged from the longitudinal evaluation of the Scottish Early Intervention Programme where most teachers rated very highly the
contribution of the nursery nurses or classroom assistants to the intervention work (Fraser et al., 2001). In these Scottish studies the role of the non-teaching staff was made explicit: to assist classteachers in literacy instruction. This highly focused curricular remit contrasts with that of the Tennessee Study where the classteachers decided the remit of the aides. It also contrasts markedly with the more practical traditional role of non-teaching support staff (Kennedy and Duthie, 1975; Fletcher-Campbell, 1992).

Parental involvement
Parents listening to their children read at home has been shown to have a positive impact on children’s progress and attainment (Tizard et al., 1982; Topping and Lindsay, 1992; Toomey, 1993; Slavin, 1996) as well their attitudes towards reading (Rowe, 1991). Also identified are spin-off benefits associated with increased parental involvement in children’s schooling (McMillan et al., 1988). While the difficulties of involving parents from disadvantaged backgrounds is acknowledged, studies show that regardless of the SES of the parents, involvement in their children’s learning can impact positively on children’s literacy attainment (Tizard et al., 1988; Wells, 1987).

Reading with a partner
Analysis of evidence from a range of partnership approaches to intervention lead Brooks and his colleagues (1998) to conclude that this approach can be very effective in situations where there are limited resources, and reading partners are available. However, they stress that the tutors will require explicit training.

There is a body of evaluative research conducted on the widely used partnership intervention known as Paired Reading. This approach uses non-professional tutors such as parents or peers working with individual children. The technique (described in Topping and Wolfendale, 1985 and Topping, 1995) places a clear emphasis on enjoyment, reading continuous text, comprehension skills, individual supervision, immediate feedback and error correction.

Topping and Lindsay (1992), in an extensive review of the literature on Paired Reading, found a general pattern of positive effects on children’s reading skills. Follow-up data was available
from only a few of the studies, however, there was little evidence to suggest fade-out effect and some evidence that acceleration could be sustained.

Comprehensive approaches to intervention
A review of interventions that included increase in reading performance as one of the success criteria, found that mixed and comprehensive strategies, rather than single strand approaches to intervention were most effective (Slavin et al., 1992). The successful interventions also included one-to-one tutoring in the first year of schooling. These programmes were underpinned by comprehensive models of reading acquisition. Broader programmes that develop a wider range of reading skills are likely to be more effective for a wider range of children (Wasik and Slavin, 1993). Success For All, an example of a widely used, comprehensive approach to intervention, has shown successful results (Slavin et al., 1990, 1996; Slavin and Madden, 1993; Slavin, 1997).

Whole School Approaches
When selecting an approach to intervention, Snow and her colleagues (1998) advise that it is important to study the context. If the whole school is at risk of failure then schoolwide approaches may be best. Rather than single strategies, they recommend a framework of integrated changes at the levels of structures and systems and classroom and curriculum that include coherent and regular teaching of reading. Strong recommendations emerging from the literature are school-wide change and involvement of all staff (Slavin et al., 1996; Fraser, 1996; Leslie and McMillan, 1999).

Continuation
Commentators recommend that programmes for disadvantaged children should offer intensive support over a period of years; the intervention needs to be sustained to achieve lasting effects of any short term gains made (Slavin and Madden, 1989; Farren, 1990).

However, the effectiveness of interventions that have involved follow-through programmes is mixed. In one study, known as DISTAR, children who took part performed significantly better on standardised tests of reading than the control group, but fade-out of these effects was apparent three years after the children had left the follow-through programme (Becker and Gersten,
1982). Conversely, in another evaluation using the same programme in all the cohorts studied, significant long-term effects were evident (Meyer, 1984).

Interestingly, some studies in the United Kingdom without follow-through intervention have still produced promising results. In a meta-analysis of reading interventions, Brooks and his colleagues (1998) found that in the seven studies that provided follow-up data, only one demonstrated fade-out effect. In the majority, most children at least held their own and in some cases continued to make relative gains.

Sylva and Hurry (1995) carried out a longitudinal study that compared the long-term effects of Reading Recovery, Phonological Training and routine school provision on reading and spelling attainment for children at age six who had made a slow start in reading. Despite the fact that short and medium term effects had been very encouraging, fade-out of these effects are documented in the follow-up report (Hurry and Sylva, 1997). However, importantly, both interventions led to long-term significant gains in sub-groups of the study. First, in the group who received free school meals both interventions, in the long-term, significantly improved their reading. The researchers argue that since these children from socially disadvantaged backgrounds are more likely to have had limited literary experiences the school will have a vital role to play in supporting poor children with reading difficulties. They recommend that targeting intervention, particularly at poor children, is an effective strategy to support one of the most at-risk groups in the community. The second sub-group to demonstrate long-term significant gains were non-readers at age six, although for these children only the Reading Recovery resulted in these gains.

**Class size**

Reducing class size is an approach to intervention that is straightforward to implement but is also expensive to finance. Slavin (1992), examining the effects of class size reduction, points to decades of research which has established that a small reduction, of for example twenty five to twenty, has few effects on pupil achievement if this is the only intervention strategy. He argues that a larger reduction of twenty five to fifteen may be effective but concludes that reducing class size, when employed as a single strategy does not appear to be effective in preventing early school failure for disadvantaged children. A decrease in class size alone does not guarantee high
quality teaching practices: other strategies, including professional development and planning for the systems and structures required to support the identified changes, are needed (Snow et al., 1998).

Recent work undertaken in England (Blatchford et al., 2002) offers new insights about the relationship between achievement and class size. Findings show a differential effect in literacy scores for different ability groups: the positive impact of a decrease in class size from twenty five to fifteen was greatest for the lowest achieving group.

An American longitudinal study found that children taught in small classes in the first four years of schooling performed better on a range of tests than children in larger classes (Finn and Achilles, 1990). The follow-up data now shows positive effects through to age 18 (Finn et al., 2001).

**Resources**
A characteristic of effective intervention programmes is the availability of a reasonable level of resources. These tend to include a detailed teacher's manual and a range of curriculum and other support materials (Crandall et al., 1986; McMillan, 1997; Slavin and Maden, 1989; Fullan, 1991).

**Pre-school**
The quality, nature and extent of the literacy experiences that children have before starting primary school affect their subsequent acquisition of literacy skills (Clark, 1984; Adams, 1990; Leslie, 2000). Studies demonstrate that many young children living in poverty lack the home-based literacy experiences available for their more advantaged peers (Heath, 1983; Wells, 1985; Teale, 1986; Adams, 1990).

However, evidence to support pre-school intervention on later reading performance is mixed. Research on pre-school provision indicates that disadvantaged children tend to show increased IQ and language scores immediately after the experience, but these effects diminish over time and after two or three years are undetectable (McKey et al., 1985; Karweit, 1989). Interest is now focusing on the long-term effects of pre-school intervention which certain studies claim
show long-lasting evidence of cognitive, academic or life-style benefits (Lazar et al., 1982; Berrueta-Clement et al., 1984; Schweinhart and Weikart, 1993; Campbell and Ramey, 1994; Campbell and Taylor, 1996).

Pre-school intervention may be a way of getting disadvantaged children off to a good start in their school education, but not an approach that used in isolation will markedly reduce their risk of school failure. Pre-school experience should be seen as part of a comprehensive approach to prevention and intervention that is continued over time (Slavin and Madden, 1989; Slavin et al., 1992/1993) rather than what Farren (1990) dismisses as ‘the booster shot notion’.

Other key findings
A range of other key findings will be explored in the next section of the review. These include: effective management and leadership; staff development training; the role played by outside agents; readiness of teachers to adopt the intervention; and the relevance of the intervention to those implementing the change.

What has been happening?

Early intervention: the Scottish context
It is important to describe the policy, research and development context of this PhD study which spanned the years 1995-1998. To turn now to look specifically at the Scottish scene around that period, it is apparent from the summary of activities which follows that Her Majesty’s Chief Inspector of Schools in Scotland aptly described the zeitgeist when she stated that: ‘There never has been a time when the importance of literacy has been more widely recognised’ (Fairweather, 1997).

Firstly, the Pilton Early Intervention Project, which began in school session 1994/95, proved to be of seminal importance (McMillan et al., 1994). It influenced both local authority and national policy and was the catalyst for the introduction of early intervention schemes throughout Scotland. The intervention focused on four Edinburgh schools situated in an area of multi-disadvantage where children were assessed as being at particular educational risk. The aim was to provide an integrated and coherent programme of intervention in the prevention of literacy difficulties from pre-school through to Primary 3. To this end, home link teachers and nursery
nurses were appointed and given a specific remit to assist in literacy development. Learning support teachers were appointed to deliver a ‘Reading Recovery type’ programme to individual children at Primary 2. Explicit recommendations for the teaching of reading and writing were offered during a series of training sessions (McMillan, 1995) led by an educational psychologist and the development officer assigned to the project. From the same funding as the school-based project an adult education literacy project was set up and separately reported and evaluated (Crowther and Tett, 1996).

The Pilton Project was rigorously evaluated on both quantitative (McMillan, 1995, 1996, 1997) and qualitative measures (Fraser, 1995, 1996). Results on standardised tests of reading and spelling demonstrated a pattern of continuing improvement at all stages, with scores superior to baseline, and tending to improve year on year. The evidence suggested that two of the main project aims had been successful, in that the time allocated to children’s reading had increased, and the development of more focused teaching strategies was observed in classrooms.

Also during this period, in 1996, a Task Force was set up to advise on strategies which would lead to improved performance amongst pupils in all school sectors. The report of their findings Improving Achievements in Scottish Schools contained wide-ranging recommendations. However, the Task Force gave highest priority to a comprehensive intervention strategy to strengthen education in the early years of schooling (SOEID, 1996). It advocated planned intervention for pupils in nursery to P3 to overcome the effects of disadvantage and to support all children in reaching, or exceeding a minimum level of performance in literacy and numeracy by P3. The key recommendation was that the Scottish Office should make available a grant to support local authorities develop early intervention schemes.

In response to these recommendations the government funded Early Intervention Programme was launched in Scotland in June 1997. The three year programme, later extended to five, was aimed directly at raising standards of literacy (reading and writing) and numeracy skills in Primary 1 and 2 (SOEID, 1998). An evaluation was commissioned by the, then, Scottish Office Education and Industry Department (SOEID), (Fraser et al., 2001a), and a summary of the findings was disseminated to all schools in Scotland (Fraser et al., 2001b).
Coinciding with this was the introduction of national target setting and the standards agenda which also had a strong focus on raising levels of literacy achievement (SOEID 1998); as well as the Social Inclusion Strategy that sought to integrate social and educational policy with the aim of giving all children ‘the best possible start in life’ (SOEID, 1999).

During this period two major literacy reports were commissioned by SOEID: reviews of the literature on the teaching of reading (Harrison, 1995) and on early intervention (Fraser, 1997). Summaries of these reports were distributed to all schools in Scotland (Fraser, 1998; Harrison, 1996). The publication of HMI reports *Improving Reading at the Early Stages 5-14* (1998) *Improving Writing 5-14* (1999) and a CD-ROM resource *Reading the Reader* (1998) added to literacy’s high profile on the educational scene. As did the publication of the first national curriculum document aimed specifically at the pre-school sector: *A Curriculum Framework for Children 3-5* (SCCC, 1999) which includes recommendations about the development of children’s emergent literacy skills. To support the implementation of these policies and developments a series of national conferences was organised by the Scottish Consultative Committee on the Curriculum and SOEID. And, at local authority level, education departments were for the first time producing policy documents on the teaching of reading (LRC, 1995a, 1995b).
Discussion

The link between educational disadvantage and poverty appears to remain resistant to change and the issues complex. The multivariate and multi-level nature of the sources which may effect children’s attainment are well documented. Of particular interest are the findings which point to the socio-economic mix of the school and the wider socio-economic structure of the neighbourhood as important variables in determining educational attainment.

The literature of the last few decades underlines the diminishing hope that education alone can act as an instrument of social change, and intensive measures aimed at tackling the roots of social disadvantage are seen as a more realistic approach to dealing with the problem. Robinson (1997) summarises this when he argues that ‘a serious programme to alleviate child poverty might do far more for boosting attainment and literacy than any modest intervention in schooling’ (p.17).

And yet, it is important to note that since the mid 1990s, there appears to be renewed faith in the power of intervention projects with a specific educational focus. In Scotland, the government funded Early Intervention Programme aimed at improving the literacy and numeracy skills of children living in areas of social disadvantage is a clear example of this. Indeed, the setting up of interventions, worldwide, seems to confirm this revival in a belief in the role which education has in tackling certain effects of social disadvantage.

At the same time, another important underpinning idea emerges in the literature. It is that an effective strategy to prevent early literacy failure should operate on two fronts: prevention and early intervention. This added focus on the prevention of literacy difficulties from emerging in the first place, concentrates attention on a need to examine recent findings from research that will provide insights into the most effective methodology for literacy teaching.

The renewed hope in recent educational initiatives may be partly explained if we examine their focus. Most recent interventions are specifically aimed at preventing early failure in the acquisition of basic skills, particularly in the area of literacy. They are based on research findings which highlight the importance of achieving early success in reading and the major role which the first years of schooling have to play in assisting children to achieve this goal.
The approaches to teaching and learning and the content of the programmes have also been informed by the substantial body of research now available into how children acquire literacy skills. Evidence from school-based approaches to literacy intervention suggests a surprising consistency in the themes emerging. A range of inter-linking strands that contribute to effective interventions have been identified. These provide policymakers, researchers and developers with critical knowledge that can inform the design and implementation of future intervention programmes aimed at preventing early failure in the acquisition of literacy skills.

One of these themes is time spent on literacy. Although it does appear that the amount of time spent on literacy instruction is an important factor in raising attainment, there is a growing consensus that it is the quality of the instruction during the extra time which is of paramount importance, and that merely increasing the time is not enough. Another key theme is the importance of the intervention being seen as a whole-school approach.

Important implications emerge from the work undertaken by Hurry and Sylva (1997) which demonstrates the long-term, significant gains made by the sub-group of disadvantaged children involved in both the one-to-one interventions studied. They suggest that targeting this systematic, intensive type of intervention, particularly at poor children, may prove to be an effective strategy. However, in schools where there is a high uptake of free school meals, it may also be worth experimenting with programmes based on the key curricular content and instructional methods underpinning effective one-to-one initiatives, but modified for use in normal classrooms and with groups of children. The aim would be to incorporate these approaches into routine classroom practice in an effort to target a wide-range of at-risk children. The potential low-cost of this strategy would suggest that determining its efficacy might be a worthwhile focus for future research.

It has also been demonstrated that broader programmes of interventions, based on a comprehensive model of the reading process tend to have a larger impact. It seems that a multi-dimensional approach is likely to result in a wider range of improvements and to be effective for a wider range of children (Slavin, 1992/1993). Within this broad framework the central importance of the development of phonological awareness and phonic knowledge has led
workers to recommend that there is explicit instruction in these skills (Sylva, 1995(b); Iverson and Tunmer, 1993)

Another characteristic of effective intervention programmes is the availability of a reasonable level of resources to enhance this more intensive teaching and learning and also to maintain this intensive support over a period of years. Resources do of course raise questions of cost. The literature related to the cost of early intervention programmes highlights key areas for future research. These include establishing which approaches yield the best results in terms of raising levels of attainment, and which approaches are most enduring over time. A key point is the proposal by Barnett and Escobar (1990) that low-cost interventions, which have proved to be effective, should be subject to practical experiment and research. This is an area which would appear to have not only great potential for gathering information about key principles that could inform future intervention initiatives, but also for promoting collaboration among local education authorities, schools and researchers.

A range of evidence has been identified that provides a compelling case for promoting intervention programmes aimed at preventing early failure in the acquisition of literacy skills. It could be argued that findings demonstrating that children, regardless of social class, enter school with high expectations of learning to read, coupled with what is known about the cumulative effects of early failure, places the onus on educators and policymakers to ensure that children are offered high quality literacy instruction during the first years of school.
PART TWO
EARLY LITERACY INTERVENTION: WHAT CAN BE LEARNED FROM OTHER KNOWLEDGE BASES?

This section of the literature review offers insights about how the design and implementation of intervention initiatives aimed at preventing early failure in the acquisition of literacy skills must be viewed in the wider context of the developing knowledge-bases on school improvement and the management of change.

Highlighted at the end of each section are key themes, issues and gaps emerging from the literature reviewed, which are relevant to work on early intervention.

School Improvement

Attempts at school improvement can be both wide ranging in their aims, or focused on one particular area. Perhaps it is not surprising that so many focused initiatives concentrate on improving children’s achievement in literacy. There is a strong argument that if children fail to progress in literacy acquisition they will experience a disadvantage in all future learning. Many primary school improvements focus particularly on developing the early literacy skills of children who, as a result of socio-economic factors, are identified as being at-risk of failing to progress in learning to read and write. While reiterating the argument put forward earlier that tackling poverty and disadvantage must be part of a broader social and economic policy, evidence from a range of interventions substantiates the claim that ‘school can make some difference’ in terms of impacting positively on the achievement levels of disadvantaged pupils (Mortimore and Whitty, 1997).

While these findings offer some hope much remains to be learnt about the complexities involved. With this in mind, the following section now turns to an exploration of how the knowledge base on school improvement can further inform our understandings of early intervention.

Saunders (2000) identifies the following wide-ranging knowledge base to which school improvement research, undertaken since the mid 1960s, has contributed:
• the conceptualisation of the management of change and the role of change agents in education;
• models for understanding how improvement can be seen as a process at system, school and classroom levels;
• insights into the experiences, views and needs of the key players;
• in-depth descriptive analysis of school cultures and power relationships;
• evaluations of individual improvement initiatives;
• a sharper focus on the classroom as the prime site of instruction and interaction.

To this list can be added: an analysis of different models of school improvement; a deeper understanding of the efficacy of approaches to staff development; and the key role of leadership.

The interrelationship that many of these aspects have with early intervention are highlighted throughout the rest of this literature review. However, from the outset it is worth pointing out that there is a paucity of evidence to indicate that the knowledge gained from studies in these different areas has been ‘joined-up’ and used to inform work on early intervention initiatives.

School improvement research is a key focus of this section. It is useful first to distinguish the research paradigm underpinning the school improvement movement from that of school effectiveness. The school effectiveness research paradigm has been more concerned with pupil outcomes rather than, as has been the case in school improvement, the processes within schools. Moreover, unlike in the school improvement paradigm, processes have only been seen as important in the way that they affect pupil outcomes (Reynolds et al., 1996). School improvement researchers tend to focus on teachers and practitioner knowledge, rather than school and research knowledge; they are interested in studying the school journey during the change process. School effectiveness researchers are more concerned with schools at a point in time and not, as in the case of school improvement, about the development and implementation of change strategies and comparing changes over time.

There are also clear differences between the two paradigms in methodological approaches, with school effectiveness researchers favouring quantitative measures, and school improvement researchers preferring qualitative measures (Reynolds et al, 1993). However, in recent years,
there has been a move to merge the two paradigms. Commentators argue that the school improvement paradigm is now moving closer to that of school effectiveness with the increasing acknowledgement of the importance of student outcomes in any process of school improvement (Hopkins et al., 1994; Stoll and Fink, 1996; Mortimore, 1998).

Interestingly, while a study of the expansive school improvement literature demonstrates that, in general, school improvement initiatives have, indeed, made more use of qualitative measures of the change process, rather than ‘hard’ outcome measures of pupil attainment (Gray et al., 1999; Saunders, 2000; Harris, 2000), the picture in relation to school improvements associated particularly with early literacy intervention is very different. Attempts at improving children’s literacy achievement have, in many cases, adopted solely quantitative measures of pupil attainment as a means of measuring the impact of the intervention.

Often the methodological approach to evaluation has reflected the narrow aims of many literacy interventions that have focused on a single level approach to improvement. Examples of literacy interventions that are underpinned by a multilevel framework to school improvement combined with a concern to evaluate the impact at different levels, such as the change processes taking place within the school and the impact on pupil outcome, are less common.

Indeed, even Reading Recovery, a multi-level system approach to intervention, which Clay (1985) claims must demonstrate four dimensions of change to work effectively, does not fulfil the above criteria in terms of the evaluation focus. Center and her colleagues (1992) highlight methodological weaknesses in a range of Reading Recovery studies in respect of the lack of evaluation of the impact on systemic and organisational change.

In the first section of this review are some examples of intervention studies that have adopted a multi-level approach to literacy improvement combined with a systematic, mixed methodological evaluation. These studies include Success for All (Slavin et al., 1996) The Pilton Early Intervention Project (Macmillan, 1995, 1996, 1997; Fraser, 1996, 1997), and the Scottish Early Intervention programme (Fraser et al., 2001). These improvement studies, with their broader, more comprehensive approaches to design and evaluation have contributed to the knowledge base of school improvement in general, and literacy intervention, in particular.
However, there is much more to discover about the experiences of schools that are involved in the process of change. West (2000:43) claims that ‘in general the literature on school development and school improvement lacks analytic case studies of schools involved in systematic and strategic innovation’. Harris and Young (2000) concurring with this viewpoint describe the process of school improvement, as still being ‘something of a ‘black box’’, and stress that ‘while there are ample descriptions of different approaches to school improvement there is less analysis of what works and why’ (p. 37).

A growing consensus about the need for systematic evaluation of the impact of intervention emerges from the literature reviewed (Hopkins 1995; Slavin, 1997; Halsall, 1998; Joyce et al., 1999; Harris and Young, 2000). However, different rationales are seen to underpin the purpose of evaluation.

Firstly, Kovacs (1998) asserts evaluations of interventions can inform subsequent policy development. Secondly she highlights the need to disseminate good practice which will require effective approaches to monitoring and evaluation. Building on this notion of disseminating good practice, systematic evaluation can also contribute to the debate about whether specific interventions are replicable. While the need to move away from ‘reinventing the wheel in every school’ is a common theme (Slavin, 1997; Joyce et al., 1999), there is disagreement about whether the context specific nature of individual interventions precludes their replication. Slavin (1997) believes that intervention programmes including ‘Success For All’ can be replicated on a broad scale. While acknowledging the complexities and accepting that approaches will need to be modified, he envisages a time when schools will be able to select from a range of replicable programmes that have been well developed and rigorously evaluated.

However, commentators do not all hold the view that interventions are replicable in different schools. Dalin, (1998) argues that whether or not an innovation will be effective will depend on the ‘situation and conditions’ in the individual school. According to Harris (2000) there is no ‘magic bullet’. He advises that specific approaches to intervention should be selected to meet the needs and context of the individual school. Mortimore (1998) also highlights the importance
of context and believes that more work is needed to investigate how different approaches can be optimally matched to particular school contexts.

Stoll (1999) believes that schools are all coming from different starting points with different capacities for change and development. Arguing that evaluations of school improvement studies show that ‘identikit recipes’ do not work, she refers to advice given by House (1974):

Avoid the primary pursuit of transferable innovations. Distributed problems cannot be solved by a single innovation that will work in all local settings, for those settings are not only different and unpredictable in specifics, but they are also constantly changing...
Different innovations will be more or less useful under widely different specific circumstances of their application. There is no Golden Fleece (p.245).

Difficulties with replicating improvement interventions at an international level have been identified, for example, in relation to the implementation of Reading Recovery in countries outwith its original setting of New Zealand (Center et al., 1992; Hurry, 1996). Attempts to generalise from the findings and experience of one country to another can be problematic because of the cultural, context-specific nature of these experiences (Reynolds, et al 1996; Kovacs, 1998).

The debate about the replicability of interventions is a key issue in the literature. Systematic evaluation of initiatives is needed to establish whether the complexities inherent in each school or education system preclude the possibility that an intervention found to impact positively in one setting can have a similar chance of success in another. In terms of improvement initiatives aimed at heightening literacy skills, while accepting the argument that there is no ‘magic bullet’ - no one approach to literacy instruction that will solve all the problems - it is clearly not practical to ‘re-invent the wheel’ for every class of children. The knowledge base, gained from evaluations of literacy interventions is now so extensive that a priority for researchers, policy makers and practitioners must be to work together and use this knowledge to create broad-based comprehensive programmes of literacy instruction that stand a better chance of success with a range of children.

A further argument for evaluating improvement attempts is offered by Hopkins and Harris (1997) who insist that evaluation is crucial in order to determine whether or not policies are
having any impact on the areas they were intended to address. They warn against merely collecting evidence of implementation and stress that the focus needs to be on the impact. They argue that 'It is vital to keep this distinction in mind, or we can convince ourselves that we are improving the school whilst in reality we are merely changing its policies' (p.149).

A strong theme emerging during the last decade is the need for school improvement evaluation to have an increased focus on the impact at pupil level (Stoll and Fink, 1996; Harris, 2000) rather than at teacher level (Huberman, 1992). Hopkins and his colleagues (1994) stress that interventions 'should have some impact on student learning. Unfortunately many school improvement efforts have neglected the bottom line by underemphasising the end of the chain' (p.39).

In terms of literacy intervention this advice focuses attention on the need to ensure systematic evaluation of the impact on children's attainment and progress. However, it is also important that studies should be flexible and extend to explore unexpected areas of impact that emerge during the implementation. Unforeseen developments may offer valuable new insights that will inform future research into early literacy intervention.

As discussed earlier, improvement interventions aimed specifically at preventing early literacy failure do, in the main, include as an evaluation focus, measures of the impact on pupil outcomes such as progress and attainment. However, Elliot (1996) goes further in terms of his proposal for evaluating the impact of interventions on children. He argues that as well as studying the cognitive and academic outcomes, systematic evaluation of the social and affective impact of interventions must also be undertaken.

This is important advice in terms of gaining a much broader understanding of the impact on children, and in terms of literacy acquisition it sits well with theories of literacy that highlight the importance of children's motivation, self esteem, and disposition to read and write. (Fisher, 1990; Guthrie and Wigfield, 2000). This more holistic attempt at evaluating the impact on the child also offers the potential to allow the child's voice to be heard.
In terms of teacher ownership and involvement, evaluation has a potentially important role to play. At the start-up participants can be wary about gathering information but as the implementation phase proceeds Fullan (1992a) claims that it is those closely involved in the implementation who are most insistent on collecting and analysing the results. As stakeholders they have an interest in evaluating their efforts and the feedback role played by the data gathered will be significant (Hopkins and Harris, 1997). Put simply by Stoll (1999), 'Educators need to know they have made a difference to their student's progress, development and achievement.'

Researchers and teachers undertaking the evaluation process in partnership has the potential to offer teachers a greater degree of professional control. If teachers are actively involved in the collection and analysis of data, and use the findings to support decisions about the development of the intervention, this offers the potential for greater equity in the balance of power and control.

However, there are no guarantees when embarking on an intervention that the hoped for improvement will be achieved. As Huberman (1992) argues 'Educational change fails more times than it succeeds.' Indeed, there are a vast number of literacy interventions that have demonstrated minimal gains, or no impact, in terms of progressing children's attainment. How are teachers expected to cope with findings such as these? Put bluntly, what systems are in place, not only to celebrate success, but also to deal with the very real possibility that a specific intervention has failed to make a difference?

Key Findings Relevant To Studies Of Early Literacy Intervention
Emerging from the literature reviewed on school improvement is a range of issues, themes and gaps that can inform studies of early literacy intervention. They are identified as:

- documented examples of multi-level approaches to school improvement in literacy are not common;
- studies of early intervention in literacy with a research design that features both quantitative and qualitative methods are rare;
- there is a call for systematic evaluation of improvement programmes;
- more needs to be discovered about the process of school improvement in action;
• the impact of the intervention on the child, in terms of academic outcomes is important, however, there is a call to broaden the evaluation to include social and affective outcome;
• the debate about the replicability of improvement programmes and the important of context are key issues.

Models of School Improvement

The school improvement tradition emerged as a reaction to externally imposed, top-down notions of change. Those who support bottom-up initiatives argue that a key feature of the school improvement paradigm is that schools and teachers are placed at the centre of change efforts. They claim that change must come from within an institution and cannot be ‘externally mandated.’ The ownership of any change should rest with staff in a school (Carter, 1998). Concurring with this notion of the importance of the school leading the change process, Dalin and Rolff (1993) describe the school as the ‘the driving force.’

While many advocates of bottom-up approaches believe the most successful improvement strategies come from within the school, there are those who also recognise the importance of a framework of external policies (Stoll, 1999; Mortimore et al., 2000). Acknowledging the significance of both, Hopkins and colleagues (1996) propose an alternative model that combines top-down and bottom-up approaches to change. The former provides an overall framework of strategy, plan and policy aims, and the latter affects the identification of priorities for development and school-based implementation.

While, it seems that this model has the potential to give power and control over to the school in determining the focus for improvement, issues of equity are not clearly articulated. How this model operates in practice is not fully explored and the key question of where the balance of power should lie is not determined. Moreover, the question remains as to how far, in reality, individual or groups of schools have the power to implement improvement initiatives that lie outwith external policy development priorities.

Tensions clearly exist between approaches to school improvement in terms of power and control. Importantly, although studies have demonstrated little success with top-down approaches in raising student achievement, the same has been found with bottom-up approaches. Although the
latter are more likely to arise from needs identified by schools, it has not been shown that they are more effective. Harris and Hopkins (2000) argue that evidence from many school systems shows that both top-down and bottom-up initiatives have failed to enhance student achievement. While they believe that government directed initiatives have not made a significant impact on students’ learning, they also stress that the ‘opposite is not proven either - ‘bottom-up’ is no panacea’.

A new emerging paradigm moves the argument on from top-down versus bottom-up. This new paradigm is underpinned by the use of strategies that enhance the schools’ own capacities for change and development (Harris and Young, 2000) It is argued that schools need to build an internal capacity for change and this internal capacity is seen as essential for the development work needed to enhance student learning (Stoll, 1999; Harris and Hopkins, 2000).

Stoll (1999) acknowledges that individual schools will have different capacities for change and she discusses the many influences that impact at the teacher, school context, and external context levels. She identifies an extensive range of ‘action-oriented principles’ which should underpin all attempts to develop internal capacity. Some of these include: challenging low expectations; putting people at the centre; changing structures and systems; encouraging reflection and inquiry; listening to pupils; developing teachers’ understanding of the process of change; and work between and beyond schools (p.515-521). In this model an infrastructure of external support will also have a major role to play in building the school’s capacity.

This paradigm, which signals the importance of schools building their own internal capacity to undertake development work, on the face of it, seems to empower the school. It acknowledges the key role of school staff and places them at the centre of change efforts: the purpose of the external infrastructure is not to direct, but rather to support the school’s efforts to develop capacity for change and development. Key questions that arise in connection with this model of improvement are: Does the school have to reach a certain stage of development in terms of internal capacity before embarking on an improvement intervention? Or, does involvement in the implementation process of an intervention, in itself, develop and enhance the school’s internal capacity? The second question points to an important research focus for future intervention studies.
Programmes of School Improvement


Targeted projects are described as Government responses to educational problems. They usually involve the allocation of extra resources for a specific purpose. Certain conditions will be attached to this funding and there will normally be a requirement to undertake an evaluation. They are characterised by a tendency to adopt a top-down approach that retains a good deal of control over the initiative. Examples of this approach to intervention are discussed in the first part of this review (McMillan, 1996; Fraser et al., 2001).

The network development (Kovacs, 1998) refers to school improvement networks which are widely practised at institutional level and often facilitated by academic institutions. Rather than the top-down system identified in targeted projects, network developments adopt a ‘more collaborative and participative’ process which encourages contact, debate and professional development. Arguably, this is an example of schools building their internal capacity for change and development. It places schools and teachers at the heart of the initiative and offers the possibilities for schools to work in partnership with other schools and outside agencies. It offers schools the opportunity to call on the external ‘infrastructure of support’ highlighted by Stoll (1999).

Key Findings Relevant To Studies Of Early Literacy Intervention

Findings and issues emerging from the literature on models of school improvement that are clearly relevant to research and development in early intervention include:

- Tensions exist between approaches to school improvement in terms of power and control;
- Alternative models proposed include one that combines both a top-down and bottom-up approach; and a model that highlights the central importance of schools building an internal capacity for change and development, supported by an external infrastructure;
- Further research is needed to explore the model where schools develop an internal capacity for improvement;
two main forms of improvement programme are identified: government projects that are targeted at particular areas; and improvement networks that are developed by schools.

**The Change Process**

All attempts at intervention involve change at some level, therefore, it seems sensible when studying intervention to also explore the knowledge base developing from studies of the change process. Findings can be used to inform the design, development and evaluation of interventions and also help predict issues and difficulties that may arise.

While it seems appropriate for literacy interventions to be viewed in the wider context of the knowledge base on school improvement and the management of change, a review of the literature indicates, that to date, this has rarely been the case. There are very few initiatives that have made use of, or studied, the interrelationship of approaches to literacy intervention, school improvement and the process of change.

Taylor et al. (2000) in a study aimed at improving the reading attainment of pupils who attend ‘high-poverty’ schools, acknowledges the failure of studies to combine a range of knowledge bases. She claims that ‘Even though we continue to learn more about effective schools, effective instruction and effective change efforts, we seem hard pressed to integrate and apply this knowledge in ways that impact the thousands of schools that are struggling to teach all children to read’ (p.1).

With this in mind, the following section now turns to a discussion of the change process with the aim of identifying key findings and exploring how these can inform studies of early intervention in literacy.

**Phases of the Change Process**

Three broad phases of the change process have been identified (Fullan, 1991). The first phase is initiation and describes the time leading up to, and including, the decision to move forward with an initiative. Phase two: implementation, describes the attempts to put an intervention into practice. The third phase: continuation refers to when the initiative may have become embedded in the system. Usually, if this phase is reached, the innovation would be sustained for over one
or two years (Huberman and Miles, 1984; Fullan, 1991). Fullan adds the fourth component of ‘outcome’ to the process. This depends on the criteria for improvement. In terms of literacy interventions that adopt a multi-framework approach to change and development, these outcomes can include the impact on pupils, teachers and the school.

**Initiation**

The initiation phase involves mobilisation, developing commitment and preparing for change. Successful initiations involve a combination of elements. Firstly, relevance: teachers need to perceive that an intervention is practical, addresses an identified need and will be of real value to the children in their class (Fullan, 1991; Day, et al., 1998; Stoll, 1999). This is stressed by Gray and Wilcox (1995, p.250) who state that ‘Improvement efforts which duck the question of what’s in them for teachers are likely to fail.’

Secondly, the need for schools to be at a particular stage of ‘readiness’ for change (Fullan et al., 1980; MacBeath, 1998; Myers and Goldstein, 1998). Crandall and colleagues (1986) propose a model of readiness that comprises individual and organisational factors. For the individual, aspects of readiness include being receptive to implementing the initiative and having the requisite knowledge and skills. Organisational readiness for change involves a consideration of whether: the innovation fits with the existing school culture; staff are free from other demands; and appropriate resources are available. The third key element of resources is widely recognised as an important factor and it is recommended that resources should be considered, and provided for, as part of the initiation process (Day, et al., 1998; Stoll and Myers, 1998; Fullan, 1991).

Clearly the issues discussed above are highly relevant in terms of the initiation of literacy interventions. It seems likely that teachers will be more committed to adopting new approaches if they believe that they are relevant to their particular school context, and, importantly, have the potential to enhance the literacy skills of the children in their classes. They are also likely to be more receptive if they are given the support and time to develop the necessary skills and knowledge required for implementation. Moreover, because the introduction of resources, such as books, materials, as well as personnel are key features of most literacy interventions, the importance of identifying and providing for these at the outset is crucial.
Development planning is a key component in the initiation phase. This is when aspects for development are identified; decisions are taken about implementation priorities; and an organisational framework constructed in order to achieve the goals. During this process there will necessarily be a move away from the needs of individual or groups. The overall needs of a whole school community or of a network of schools will take priority (Hargreaves and Hopkins, 1991). It is claimed that involving staff in the development planning process is of paramount importance. Day and his colleagues (1998) argue that if the need for change has been identified by someone other than the person who is expected to implement the change this is likely to affect levels of commitment. They believe that the role of the headteacher during this process is not to identify needs for others, rather it is to encourage staff to identify areas for development. Ownership is more likely to arise if the participants feel that they played a part in the initial planning and shaping of the initiative (MacBeath, 1998). However, while this seems reasonable, Evans (1996:68) warns that it is important to keep in mind that implicit in this perspective is the belief that teachers both desire this type of empowerment and have the skills to deal with the authority that this level of power will bring. He claims that these expectations may be unrealistic and damaging to change efforts.

While the literature tends to point to teacher participation during the initiation phase of an intervention as a vital component, in ‘the real’ world of schools it is debatable how participative the decision-making process to embark on an intervention can be. The decision is frequently made outwith the school: at national, local authority, or school neighbourhood level and these external directives will impact directly on the decision making power of individuals within a school.

Moreover, taking the example of literacy interventions, it is debatable how far individual teachers in a school can shape the course of action selected to address the identified priority. In many literacy interventions the content of the programme is developed by personnel outwith; the method of delivery is highly prescriptive; and fidelity to the programme is seen as paramount. While headteachers may wish to promote staff involvement in the development process, they too face pressures from external control that will necessarily influence the decisions they make.
 Implementation

The implementation stage, according to Fullan (1992a), refers specifically to what happens in practice. A study of this phase scrutinises both the content and the process. It examines, at the level of practice, how people come to terms with coping with new ideas. Fullan identifies two main reasons why exploring the implementation stage is important. Firstly, it is essential to conceptualise and measure what, if anything, has changed. He argues that without the knowledge of what is 'in the black box' of implementation...we can not begin to link particular changes to outcomes' (p. 22). Secondly, he claims that by studying implementation we can begin to understand why educational innovations fail, or succeed, in achieving their desired aims.

Focusing attention on implementation of an intervention can also ascertain whether any changes that occur, do, in some way, resemble the changes to practice that had been intended at the outset (Huberman and Miles, 1984). It is, of course, also important to identify unplanned for changes. Studying unexpected developments may offer an alternative perspective on aspects of the change process.

The need for clarity, in terms of the intervention's focus and the means of implementation, is identified as a vital component if schools are to progress from the initiation phase through to implementation (Louis and Miles, 1990). However, even when teachers have identified a specific area, such as literacy, for development, there can be confusion about exactly what has to be done differently. Many studies demonstrate that participants are unsure about exactly how to implement an initiative and unclear about exactly what it looks like in practice. Participants may also be unclear about exactly what the goals are, particularly if they are not focused or are not their own (Mortimore et al., 1988; Fullan, 1991). According to Fullan (1992b), this lack of clarity, combined with unspecified means of implementation, can be a major difficulty in moving forward. However, he also cautions against 'false clarity,' when change is interpreted too simply and participants fail to understand that an initiative is more complex than it seems. This can result in teachers rejecting the initiative claiming 'we are already doing that' (p.113).

Huberman (1992) discusses a range of paradoxes permeating the change process. These include findings that initial smooth implementation is usually a sign of trivial change; that problems of
initial sacrifices in other areas, for example less time for mathematics, are indications that significant change is taking place; that rapid success can be followed by rapid decline and that there is no necessary relationship between a successful initiative and its longevity.

Interestingly, in terms of complexity, smaller attempts at educational change may be easier to carry out, but will have less impact. Whereas, more ambitious change projects may not achieve all their goals, but the changes that do occur are more in-depth (Crandall, et al., 1986).

The initial stage of implementation can be difficult, with people suffering what has been described as the ‘implementation dip’ (Fullan 1992b). This phenomenon was also found during the early phase of an intervention studied by Huberman and Miles (1984). Initially, participants felt overworked and were anxious that the project was impacting on their pupils, however, most teachers seemed to work through these problems. The researchers argue that during the early stages of implementation it is important that participants should feel that the identified needs are significant and that they are making some progress in addressing them. Experiencing some early success during this phase can act as an incentive.

However, it is important to keep in mind that teachers who are implementing new practices may experience a sense of loss of power and professional control. According to Huberman (1992), significant change at the classroom level can cause increased levels of uncertainty and stress for the participating teachers. He stresses the importance of understanding that implementation is a ‘tricky business’, not the least ethically and politically, and highlights the position of the child in the complex process of intervention. This position is nicely summed up by Stoll (1999) as having ‘a deep respect for the human dimension of change’.

The mastery of skills and development of commitment takes time. Huberman and Miles (1984) argue that teachers’ commitment develops as they begin to master the skills needed for implementation. Ownership comes with the combination of mastery, coming to terms conceptually and the positive experience of achieving success in the aims of the project (Huberman and Miles, 1984; Fullan, 1992b).
Keeping in mind that teachers are learning these new skills, to put it bluntly, on the job, it is important not to underestimate the negative impact that early feelings of insecurity might have, not only on professional confidence, but, perhaps more importantly, on the learning experiences of the very children at whom the intervention is aimed. Positive feedback on children’s success is therefore highly likely to help offset teacher’s anxieties.

Stanovich and Stanovich (1995) claim that debates about succeeding models of reading instruction have ‘confused and demoralized educators’. Disagreement about the most effective methods can have a potentially negative impact on children who are learning to read: referring to earlier work by Stanovich (1990:221) they claim that as a result of these disputes ‘we stand to hurt innocent bystanders.’ Clearly, teachers and children are at the heart of all intervention attempts and as key stakeholders their voices should be heard, and needs and concerns recognised.

In terms of the ‘human dimension’ of teacher involvement in change, it seems important to highlight and share existing knowledge of the challenges and uncertainties that participants are likely to experience.

**Continuation**

In this phase the initiative is no longer thought of as something new, but has become embedded in practice. This phase does not lead on automatically from the implementation phase, as has often been assumed. Two or three years on from the adoption of an initiative, studies demonstrate that teachers are most likely to have either reduced the scale of the project, or are still working with the most basic components (Huberman, 1992). Findings such as these point to the need for intervention studies to adopt a longitudinal focus, so as to assess accurately the impact of the innovation.

Many studies have documented how easy it for schools to slip backwards even after they have achieved some success in raising attainment. A range of factors can contribute to the fading away of an innovation. These include: the diminishing of the initial wave of enthusiasm; key personnel leaving; the end of project funding; or pressure to adopt new initiatives (Reynolds et
al., 2000). Other reasons are identified as removal of the assistance of outside agents; poor implementation; and lack of support for new teachers (Fullan, 1992b).

Further factors are identified by Stringfield (1998). He draws on his work with colleagues Stringfield et al., 1997) on a large-scale longitudinal inquiry aimed at examining ‘promising programmes’ for improving the academic achievements of disadvantaged children. Factors identified as impacting negatively on continuation included: difficulty in sustaining teacher commitment for the intervention; problems of leadership crises; difficulties with the new, aligning with the existing curriculum; and problems with both the recruitment of competent staff and the skills of existing staff.

Huberman and Miles (1984) argue that initiatives are more likely to enter the continuation phase if, firstly, through policy, budget and timetabling it becomes embedded in the structure and work of the school. Secondly, there are personnel who are committed to the change and have the necessary skills to continue. And, thirdly, a group who are experienced and committed to the initiative is available to give support to both new and continuing staff.

Key Findings Relevant To Studies Of Early Literacy Intervention
The following key findings, issues and gaps in the literature that emerge from studies of change are of particular interest:

- the relevance of the initiative to teachers; the school’s readiness for change; and the availability of resources are of paramount importance during the initiation phase;
- a high level of teacher involvement from the outset is recommended, however this may not be realistic in practice;
- clarity in terms of the focus of the intervention is identified as crucial;
- the process of change is likely to be highly complex and associated with much uncertainty for all involved; feedback on success is important;
- more recognition of the human side of change is needed;
- longitudinal studies are needed to give a more complete picture of the impact of intervention.
Dimensions of Change: Multi-level Models

To turn now to a closer examination of multi-level perspectives on change that are identified as critical for the success of an initiative (Hopkins and Lagerwelj, 1996; Joyce et al., 1999; Harris, 2000).

Changes to structures and systems are associated with success in intervention projects, and include: creating new policies; changing roles and responsibilities; providing time for people to meet; joint planning and teaching; employing new staff; and new approaches to timetabling (Stoll and Fink, 1996).

Classroom level change, the acknowledgement of the primacy of the classroom and a re-focusing on teaching and learning are increasingly recognised as significant in the variation in pupil achievement (Slavin 1997; Gray et al., 1999; Saunders, 2000). Within this level, Fullan (1991) claims that there are three levels of change possible when implementing a new programme. These are: the use of new materials; new teaching strategies or activities; and alterations of beliefs. He suggests that there is a hierarchy of difficulty in terms of achieving these different dimensions of change: resource use is the most visible and easy to implement; changes in teaching approaches are identified as presenting greater difficulty; while the most challenging of all is for participants to alter their conceptions and beliefs.

Changes at teacher level are recognised as important during implementation as this is when participants will have to learn to do, and understand new ideas and things. At the core of implementation there will be changes in what people do (behaviours), associated with new skills, activities and practices, and changes in what people think (beliefs) associated with new understandings and commitments (Fullan, 1992b). Changes in behaviour seem to precede changes in belief. Change, occurring first at the level of teachers’ practice and organisation, can lead to changes in beliefs (Huberman and Miles, 1984). This view is succinctly summed up by Fullan (1991) who states that ‘educational change depends on what teachers do and think - it’s as simple and as complex as that.’

According to Pinnell and her colleagues (1994), more time is needed for teacher reflection and development during the implementation of literacy interventions. They argue that strategies
must be developed that encourage teachers to reconstruct the theoretical beliefs that underpin their literacy practice, otherwise it is likely that new practices will be implemented along the lines of previously held theoretical assumptions and beliefs. They consider that a major difficulty is the failure of innovators to consider 'the paradigm shifts for decision making' that the introduction of new teaching practices will require. This was found to be the case in a study by Chall (1983) where teachers implementing new literacy programmes held on to their old practice and beliefs and this limited the level of change.

Teachers' beliefs about effective approaches to literacy instruction will have a strong influence on their willingness to develop and change practice. These beliefs will have been formed over years and influenced by prior experience. Inquiry and reflection will therefore be a key component in any approach to literacy intervention. As teachers work through a new initiative it is critical for them to evaluate the process and reflect on the impact of the intervention. An emphasis on inquiry and reflection has been identified as an important contributory factor to the success of a range of initiatives (Hopkins and Harris, 1997; Halsall, 1998; Joyce et al., 1999).

A different approach to changing the attitude and beliefs of teachers is adopted in The Accelerated Schools programme, an intervention aimed at raising the attainment levels of disadvantaged children. Henry Levin, who developed the programme claims that the success of the approach depends on getting participants to change their behaviour and to try new approaches (Brandt, 1992). However, he stresses that it is not his role to change attitudes. His approach rests not on giving a precise framework for implementation, but general principles, which schools following the programme are expected to develop to suit the context and needs of the children. Levin argues that it is by working things out, trying new strategies and achieving some success that beliefs and attitudes begin to change.

On the face of it this appears to be a promising model for literacy intervention. Following the spirit of this approach, teachers could be presented with broad principles of content and instruction taken from the literacy-knowledge base and then encouraged to make use of these to develop comprehensive literacy programmes tailored to meet the needs of the children in their school. While offering a structure, this also encourages teachers to make professional
judgements, and has the potential to offer them some control over the development of the intervention.

As well as teachers’ beliefs about practice, their expectations in terms of children’s achievement are considered to be a crucial factor. Much is written about the notion of the self-fulfilling prophecy and the way in which teachers’ high or low expectations can impact upon children’s level of achievement and motivation (Louis and Miles, 1992; Mortimore, 1998; McCallum, 1999; Mortimore et al., 2000). An interesting focus for study would be to investigate whether teachers perceived that involvement in an intervention had impacted on their level of expectations.

In a different model of multi-level change, Reading Recovery (Clay, 1985) is one of the few literacy interventions that specifically mentions the need for change in child behaviour. A review of the literature highlights a notable lack of literacy interventions that have sought to explore children’s perceptions and beliefs. So a closer examination at child level offers a very interesting and worthwhile focus for future literacy intervention projects.

**Key Findings Relevant To Studies Of Early Literacy Intervention**
Emerging from the literature reviewed is a range of issues and themes that are relevant to early literacy intervention. They are identified as:

- the critical importance of achieving multi-level changes as part of an intervention;
- while acknowledging the importance of the above, the primacy of changes at classroom level, with a focus on teaching and learning is crucial;
- changes in teachers’ behaviour may come before changes in belief; willingness to change practice will be strongly influenced by previous beliefs about effective approaches to literacy instruction;
- opportunity for inquiry and reflection may be a key component in any intervention;
- a promising model encouraging teachers to retain a high level of professional control, might be to offer staff broad principles of content and instruction that they can develop to create a literacy programme appropriate to the needs of their children;
• the impact of the intervention on teachers' expectations of children's levels of achievement and motivation.
• a paucity of interventions that have studied young children's understandings about literacy

**Staff Development**

Staff development is seen as a key component in the change process and is a growing knowledge base that can make a contribution to studies of early literacy intervention.

Discussing the interrelationship between staff development, implementation and student achievement, Fullan (1992a) refers to a reading intervention with secondary pupils by Stallings (1989 pp.3-4) which was one of the first studies to demonstrate this link. For Stallings the components of effective staff development are predicated upon a range of teacher experiences. Summarised, these include: awareness of a need for improvement; written commitment to trying new ideas; modifying, trying and evaluating workshop ideas; observing in each other's classrooms; reporting on successes or failures; discussing problems and solutions; presenting at professional meetings; and setting new goals for professional growth. Stallings' findings appear to sit well with a model of improvement that focuses on developing the internal capacity of the school (Stoll, 1999). There is the potential for teachers to play an active role in driving the process forward and there is acknowledgement of the context-specific nature of the process.

In terms of literacy interventions, studies show that research findings from the literacy knowledge base are a powerful component in any programme of related staff development, if this is linked to classroom practice. Many of the most successful approaches to intervention, such as Reading Recovery and Success for All are set in the context of research-based models of curriculum and instruction (Clay, 1985; Slavin, 1996).

Why is the association of findings from research with classroom practice such a powerful combination? One very simple, but important possibility may be that by introducing teachers to the research-base that has informed the literacy instruction promoted in a particular intervention, they develop a clearer understanding of why certain strategies are recommended. This, in turn, may impact on their assessment of the relevance of the intervention to the children in their classes. Moreover, studying the research-base enables teachers to engage with theories of
literacy acquisition. Making 'the bigger picture' of the intervention transparent may well empower those who are involved in its implementation.

On the other hand, the suggestion that engaging with the literacy knowledge base empowers teachers must be viewed with some caution. Unless the spirit of the approach is to fully involve teachers in analysis, and decision making about the best use of research evidence, it is questionable whether there will be any real impact on their power. If the end result is merely that teachers have a better understanding of the research findings that have informed the particular intervention that they have been directed to follow, then, perhaps, 'empowerment' is too strong a term.

Again the study of theory is highlighted by Joyce and Showers (1980). This time in association with modelling, practice, feedback and coaching. The effectiveness of each of these strategies is thought to be greater when used in combination. The breadth and quality of the training, as well as support during implementation have also been found to be components of successful literacy interventions (Adams, 1990; Wasik and Slavin, 1993).

A strong focus on teacher development is central to the intervention, Reading Recovery. A key component of this approach lies in theories of social constructivism. Teachers learn the necessary skills to implement the approach in social settings, where they are encouraged to construct meaning through social interaction (Pinnell et al., 1994). Teachers engaging in talk about their classroom practices is identified as an important element of effective school improvement. According to Hopkins and Harris (1997), 'One of the characteristics of successful schools is that teachers talk about teaching.' Collaborative approaches where there are on going, whole school opportunities for teachers to learn together can be effective in promoting the implementation of an initiative (Harris and Young, 2000). Reviewing a range of training approaches, Fullan (1992b: 123) concurs with this view, identifying 'these processes of sustained interaction' as crucial no matter what the focus for change.

However, many examples of staff development fail to achieve their aims. Fullan (1991) drawing on earlier work (1979:3) suggests some reasons why this is the case. Paraphrased these are:
• One-off in-services which have no follow-up support or evaluation and lack a conceptual framework.
• Topics chosen by someone other than the participants and do not address individual needs.
• Participants come from a range of school contexts, but there is no recognition of positive and negative factors that may be experienced during implementation in their own setting.

Recent work has introduced a new dimension for consideration: the failure of staff development to develop participants’ understanding of the various components needed to achieve change. Stoll (1999) argues that the requirement for school staff to have a deep understanding of the complexities of change, has ‘too often been downplayed.’ Dalin (1998) concurs with this view and posits that to support teachers in implementing change they too should have an understanding of the process. He recommends that both the trainers, and the teachers who will be responsible for implementation should develop a ‘knowledge of the process of innovation.’

Key Findings Relevant To Studies Of Early Literacy Intervention
In summary, the following findings identified on staff development can inform research and development work in early intervention:

• staff development is a key component in the implementation of change;
• the most effective models combine a range of approaches and strategies;
• the theoretical content is a powerful component when it is clearly linked to practical application;
• collaborative approaches where teachers learn together and social interaction is encouraged are identified as elements of successful staff development;
• staff development has failed to address teachers’ needs in terms of their understanding of the complexities of the change process.

Wider Collaboration
Cluster and Whole school
It is claimed that changes to classroom practice are more likely to occur in whole school and cluster initiatives, rather than if only groups or individual teachers are involved (Lortie, 1975; Rosenholtz, 1989; Halsall, 1998; Stoll, 1999; Joyce et al., 1999). Recent studies have shown a
cluster of schools working together may be a particularly effective approach to implementing projects. For the staff involved, exchanging ideas and expertise, the novelty of the situation, and the stimulation of working with new people, can all combine to create a positive context for innovation. It also gives teachers at the same stage, who will have experiences in common, the chance to work together (Huberman, 1992; Stoll, 1999). This approach is described as a 'Network Development' (Kovacs, 1998) and may enhance the position of the teacher in that they can retain a measure of power and professional control during implementation.

However, while studies have shown that collaborative cluster initiatives can be effective. This model may not take account of the different levels of capacity for innovation in each school. Different schools will not all be at the same stage of readiness and the strategies employed will have to match up with wherever the school is in terms of development (Hopkins and Harris, 1997; Dalin, 1998). The assumption that a whole-school approach to improvement is the most effective strategy is also challenged. Some workers recommend a differentiated approach both between and within schools (Harris, 2000; West, 2000).

A study by Nias and colleagues (1989) found that even when teachers were keen to collaborate and work together they found it difficult to do so. Collaboration requires time (Stoll and Fink, 1996). Headteachers are seen as vital in helping create such a culture by developing a framework that supports teachers in their work, ensuring the opportunity to collaborate on tasks, and take the lead in particular activities (Halsall, 1998).

Furthermore, while much has been written about the benefits of collaboration, Fullan (1993) believes that the concept is often misunderstood. He argues that collaboration does not mean consensus, and that particularly at the early stage of an initiative it is 'healthy not heretical' for participants to take 'a questioning stance' (p. 83).

Evans (1996) argues a different perspective, that the promotion of collaborative cultures ignores a crucial benefit for teachers associated with working alone. He claims that working alone offers 'the benefits of freedom' and suggests that teachers' perceptions of the appeal of this kind of autonomy may well stand in the way of the development of collaborative cultures.
Outside Agents

Outside agents can play a number of roles in an intervention project. They can bring relevant evidence or research findings from other schools which can help the change process and encourage growth. Fullan (1991) believes that some of the most powerful and successful change processes have involved ‘interactive professionalism’ where groups of schools, local authorities, and universities or businesses worked together towards an identified goal. Outside agents can be involved in the development, design and evaluation of projects, provide feedback, and monitor the follow-up of the intervention. Support from outside consultants, in both curriculum content and instructional approaches, is also common in school improvement initiatives (Learmonth and Lowers, 1998). And the outside agent can have a key role to play in helping to devise solutions to identified problems (Harris and Hopkins, 2000).

According to Dalin (1998) a combination of these roles is needed in any development project. He recommends that these responsibilities are shared out rather than schools becoming overdependent on the expertise of the outside agent. He suggests that the aim of the outside agent’s involvement is to enhance the capacity of the school and the competence of others.

Partnerships Between Schools and Universities

A particularly effective way of involving outside agents is identified as building partnerships with higher education personnel.

Day and his colleagues (1998) outline clear advantages in adopting this approach. They argue that higher education personnel:

- are not connected to the authority structures or inspection mechanisms of the schools;
- are able to provide knowledge and skills which are complementary to those held by colleagues in school and ILEAs;
- offer access to a variety of research and knowledge perspectives;
- must as part of their job maintain a broad critical vision of schools and schooling (p. 217).

However, while the role of the outside agent can be viewed as a kind of mediation between top-down pressures and teachers, teachers might well perceive them to be yet another power-base
exerting control in the implementation of an intervention. In the past there has also been a degree of scepticism on the part of teachers as to the relevance of the knowledge and the value of contribution that could be made by academics to the practical developments needed in schools (Huberman, 1993). Therefore, it is important to overcome the theory-practice divide between university and schools in research projects (Carter and Halsall, 1998).

A range of contexts that have generated effective partnerships between school staff and higher education personnel are identified by Day and his colleagues (1998:218). These include: consultancies that focus on approaches to the teaching, learning and development of specific curricular areas; collaborative action research studies; and projects which involve personnel from higher education working with a school, or groups of schools, on an area for development, over a period of years. The latter is identified as the ‘richest of partnerships’. Working in this way is viewed as a new approach to collaboration that encourages work between equal partners (Dalin, 1998).

On the face of it this type of collaboration does seem to offer benefits for both parties. And, indeed, it could be argued that the design, implementation and evaluation of an early literacy intervention provides a clear and effective focus for such collaboration. Nevertheless, it is likely that there is still a lot of work needed on the part of academics to demonstrate their practical knowledge and understanding if this partnership with schools and teachers is to develop further.

**Key Findings Relevant To Studies Of Early Literacy Intervention**

- school cultures where there is collaboration and co-operation amongst staff may be the contexts most likely to promote school improvement;
- a school cluster model of collaboration where schools work together on the implementation of an initiative is a potentially effective approach;
- collaborative work may need to take account of the different capacities for change and development inherent in each school;
- the headteacher will play a crucial role in creating the structure and systems needed to promote collaboration;
• the notion of collaboration is complex and does not preclude the existence of debate and discord;
• outside agents can offer schools a wide range of support during the implementation of a new initiative;
• partnership between personnel from higher education and school staff is identified as an effective strategy

The Role of the Headteacher

The literature on school improvement and the management of change makes frequent mention of the importance of effective leadership at all levels, but with the role of the headteacher being seen as vital (Reynolds and Farrell, 1996; Day et al., 1998; Stoll and Myers, 1998; Gray et al., 1999).

The headteacher has an important role to play during the implementation phase. This does not necessarily involve the adoption of an instructional role, rather the focus is to promote the project and actively support change efforts with good management practices. The participation of the headteacher will be crucial in mobilising resources to support implementation (Stoll and Fink, 1996).

Clearly projects that have the backing and commitment of the headteacher stand a better chance of success, particularly when changes to curriculum approaches are recommended. The headteacher is in the position to create the context for successful implementation, introduce the necessary structure, provide resources, allocate time for collaboration and set up procedures for monitoring and evaluating the success of the project (Fullan, 1991). Active and participatory leadership, rather than top-down delegation has been identified as necessary in school improvement initiatives (Harris, 2000).

Conditions at school level that support and sustain improvement have been identified (Harris and Hopkins, 2000). In terms of the key management arrangements they are summed up as:
• a commitment to staff development;
• practical efforts to involve staff, students and the community in school polices and decisions;
transformational leadership approaches;
- effective co-ordination strategies;
- proper attention to the potential benefits of enquiry and reflection; and
- a commitment to collaborative planning activity (p.10).

The creativity of school leaders is also considered a key factor. McCallum, (1999) suggests that headteachers who are creative thinkers try to find ways round problems and are not resistant to change.

The literature reviewed suggests that involvement in change efforts is likely to be a highly complex experience. Headteachers, as well as their staff are likely to be faced with a range of challenges and dilemmas during the implementation of an intervention. Evans (1996) argues that any theories about leadership must be set in the context of the realities of everyday school life and acknowledges that ‘successful change requires a combination of the highest strivings and the most down to earth expectations.’ (p.299)

**Key Findings Relevant To Studies Of Early Literacy Intervention**

Many of the findings and issues emerging from the literature on change point to the vital role played by the headteacher. Key findings that are relevant to research and development in early intervention include:

- effective management and leadership skills are crucial;
- in particular, the importance of the headteacher actively supporting the implementation process through adequate resourcing is identified;
- in a similar way to teachers, during the implementation of a new initiative the headteacher is likely to face a range of challenges.
Discussion

The preceding section of the literature review explored aspects of the knowledge bases underpinning: school improvement; the process of change; staff development; the role of the headteacher; and collaborative practices. The evidence suggests that all the afore-mentioned knowledge bases can contribute significantly to the development of a deeper understanding of the study and design of early intervention initiatives.

Joyce (1991) describes the process of school improvement as one of 'opening doors'. In order to further develop an understanding of the process of intervention, as well as studying 'the doors' to improvement, it is also important to explore the 'barriers' encountered during the process.

Another strong message coming from the literature is that there is still much to be learned about the process of improvement in schools. The enduring call for broader and more systematic evaluations of initiatives gives a clear indication that further clarification and more specific examples are needed of what the process of implementing an intervention looks like in practice. Clearly, as well as exploring the process of change, the importance of scrutinising the multi-level impact on structure and systems within the school, and the impact at both teacher and pupil level are identified as a priority. In terms of early literacy intervention, this wider approach to evaluation, achieved by gathering not only quantitative pupil outcome data, but also the qualitative perceptions of the key players, may offer an opportunity to get to grips, at close quarters, with the process of implementation. Studies that aim to gather data about the bigger picture of intervention are perhaps more likely to offer insights about this highly complex process. Furthermore, in terms of the continuation of interventions, it is also important to remember that change takes place over time, therefore, a longitudinal dimension seems necessary in any study.

As well as objective measure of outcomes such as pupil attainment and progress in literacy, it is crucial, also, to study how the intervention has impacted on less easily measured areas. A strong message coming through from the literature is that that the human dimension of change has often been disregarded, therefore, it would appear that a priority is to find out more about the experience of the participants during the implementation of an intervention; and to explore their perceptions. It is worth highlighting the call for a more holistic view and ensuring that all
participants have a voice. Very few literacy early intervention studies for example have sought to explore children’s perceptions.

Running through the whole process of implementation in an intervention are issues associated with the balance of power and control. Tensions exist in this respect between approaches to improvement. It seems that the balance of power and control can shift depending on the model of improvement underpinning an intervention. What people think and what they do are of paramount importance.

The key role played by the headteacher is a strong theme emerging from the literature reviewed. This highlights the need for studies of intervention to explore not only teachers’ perceptions and actions, but also those of the headteacher. They are likely to face similar challenges to those experienced by their teachers. They too will have to learn to do, and understand new ideas and things; as well as make changes to their personal practice and organisation. Moreover, on another level they will have responsibility for organising and sanctioning changes to structures and systems within the school.

Headteachers too may have to alter certain assumptions and beliefs in order to come to terms with the theoretical framework underpinning new practices. It is therefore equally important for headteachers to have the opportunity for inquiry, reflection and discussion, not only with their staff, but also with fellow headteachers.

While a range of models emerge from the literature that might inform work on early literacy intervention, it may be that the model, which centres on schools building their own internal capacity for change and development supported by an external infrastructure, offers the greatest promise for encouraging the empowerment of teachers and schools. It places teachers and schools at the centre of the process of intervention, and utilises external support to assist in the development of capacity.

The evidence emerging from the literature on the role of change agents, supports the view that making use of this type of external support is an effective strategy for enhancing school and teacher development. Personnel from schools and universities working together is seen as a
potentially powerful partnership, albeit with the proviso that academics require to successfully demonstrate their practical knowledge and understanding of the initiative in question.

The evidence from different knowledge bases clearly points to the importance of collaboration amongst schools, teachers and other institutions. This theme merits further examination in the context of approaches to early literacy intervention.

The complex nature of the goal of raising the literacy attainment of socio-economically disadvantaged children, and a range of intervention programmes implemented to achieve this goal, were discussed in the first part of this chapter. After close consideration of the body of literature reviewed in the preceding sections, it seems evident that merely introducing a programme of intervention, no matter how good the quality of the particular programme, is not likely to be enough. A range of other factors is likely to impact, both positively and negatively on the success of an initiative and it is crucial that these factors are scrutinised.
The Research Questions

The concluding section of this chapter now turns to the research questions addressed in this study. The research questions were determined by the research aims identified in the Introduction and informed by key issues arising from the literature reviewed.

The research questions were:

• During the initiation phase of the intervention how did participants (headteachers, classsteachers and learning support teachers) perceive:

  - the relevance of the initiative
  - their readiness to participate
  - the availability of resources?

• How did participants perceive the change processes, if any, that occurred during the implementation phase and continuation phase of the intervention in terms of:

  Impact on structures and systems at cluster level, for example:

  - policy development;
  - collaboration amongst headteachers;
  - collaboration amongst school staff;
  - commonality of experience for children

  Impact on structures and systems at school level, for example:

  - deployment of staff
  - resource allocation
  - collaboration
  - organisation

  Impact on practice at classroom level, for example:

  - methodology
  - curriculum balance
- time spent on literacy activities
- resources

Impact on participants, for example:
- beliefs
- actions

Impact on children, for example:
- literacy behaviour
- literacy learning
- literacy attainment
- literacy progress?

- In comparison with a control group was there a significant increase in the intervention children's measured literacy attainment at the level of:
  - the cluster of schools
  - the individual schools
  - the sample divided into two groups according to socio-economic status?

- What factors predicted literacy attainment on entry to Primary One?

- What factors predicted children's attainment and progress in literacy at first follow-up (after one year of intervention and at second follow-up (three years from the start of the intervention)?

- In particular, did the intervention impact differently on children with free school meal entitlement?
CHAPTER 2
RESEARCH DESIGN AND METHODOLOGY: OVERVIEW AND RATIONALE

Design

There is a well-rehearsed debate between positivist and interpretivist views of social reality (Hammersley, 1992; Schwandt, 1994; Cresswell, 1994). Cohen and his colleagues (2000:27) argue that the positivist and interpretive paradigms are ‘concerned with understanding phenomena through two different lenses’. They offer the following view of the differences between the two paradigms:

Positivism strives for objectivity, measurability, predictability, controllability, patterning, the construction of laws and rules of behaviour, and the ascription of causality; the interpretive paradigms strive to understand and interpret the world in terms of its actors. In the former, observed phenomena are important; in the latter meanings and interpretations are paramount. (p. 27)

Researchers with an interpretist philosophy believe that people actively make sense of their world and that social reality is therefore socially constructed, while those with a positivist philosophy ‘believe that there is an objective reality that exists apart from the perceptions of those who observe it’ (Schutt, 2001:46).

While, in the main, adopting an approach based on an interpretist philosophy this study was also underpinned by elements of a positivist view. Adopting this less purist view of reality was seen by the researcher as a strength because the aim of the research was to adopt a wide perspective on the issues under examination. For example, while the researcher held strong beliefs about the importance of exploring and developing understandings about the subjective world of human experience during the implementation of the intervention, the study was also underpinned by a strong commitment to the belief that collecting empirical data related to measurements of children’s attainment and progress during the intervention was both important and achievable.

A mixed-method research design was employed where both quantitative and qualitative methodologies were used to answer the research questions. It is important to note that mixed research design has its critics and a number of workers in the field view the two approaches as
fundamentally at odds (see for example Smith and Heshusius, 1986; Guba and Lincoln, 1994; Cresswell, 1994). This is primarily because, as Niglas (1999) points out, quantitative methodologies have become closely linked with the positivist paradigm while qualitative methodologies are closely associated with the interpretive paradigm; and the two different methodologies have become bound up with the different views of social reality that underpin these two different paradigms.

However, other researchers adopt an opposing viewpoint and claim that it is feasible to incorporate both quantitative and qualitative methods in the same study (Datta, 1994; Yin, 1994) and that the paradigm underpinning the research does not necessarily determine the methodological approach (Patton, 1988). Moreover, Cupchik (2001:9) argues that the complimentary roles played in the analysis of social phenomena by these different methodologies can help to bring accounts of these phenomena 'to progressively greater levels of clarity'.

Each research design has to be 'individually tailored to achieve the aims and objectives of the research' (Bechhofer and Paterson, 2000:47). The structure of this inquiry took account of this and was governed by the notion of 'fitness for purpose' (Cohen et al., 2000:73). The research design flowed logically from the research questions and identified the type of evidence needed to answer the questions 'as unambiguously as possible' (De Vaus, 2001:9).

The mixed design adopted elements from different traditions of inquiry and is therefore difficult to classify in traditional design terms. However, the research had many elements of a case study in terms of, firstly, the broad definition offered by Bechhofer and Paterson:

that all research studies are, in a sense, case studies, insofar as the empirical material they gather comes from a particular locale and group. (2000:54)

And, secondly, more specifically as described by Cresswell (1998:61) in the respect that this study was the exploration of a particular case 'over time through detailed, in-depth data collection involving multiple sources of information rich in context.'
While there are no claims made that this study was set up as action research, some of the characteristics of the action research model clearly underpin the study's design. For example, at the outset of the research a problem was identified, then an intervention was planned and implemented and the outcomes were evaluated (Cohen et al., 2000). However, there are clear differences because while the participants identified the problem and, as a result, took part in an initiative that for many involved changing and developing their practice, the participants did not lead the research on their own work. This ownership of an investigation is identified as a key principle of action research (Kemmis and McTaggart, 1992).

The notion of the reflective practitioner (Marshall and Rossman, 1999), another key principle of the action research tradition, influenced elements of the study's design. For example, diary writers were recruited to keep records of the implementation process and were encouraged to offer a reflective commentary on this process. Data about participants' perceptions were collected during review days that were set up to allow collaborative reflection on the development of the implementation of the intervention. However, a key element of action research, the cyclical spiral process where each cycle of action and reflection informs the next phase (Kemmis and McTaggart, 1992) was not a feature of the design.

When the action research approach is employed data is gathered over a period of time, at different points in the process, and, in this respect, there were also similarities with the design of this piece of research

The study was longitudinal in design. Data was collected over a three year period from children and over a two year period from headteachers, classteachers and learning support teachers.

The part of the study that sought to explore measurements of children's attainment and progress employed a quasi-experimental design (Cook and Campbell, 1979). This design is used in much educational research where the random selection and assignment of schools and classes is impracticable (Scott and Usher, 1999; Bechhofer and Paterson, 2000; Cohen et al., 2000).

The study took place in a cluster of six inner city schools that were situated in, or close to, areas of multiple disadvantage. The six schools were self-selecting in that their involvement in the
research study arose from their participation in an intervention project aimed at raising literacy standards across their cluster of schools. The research was therefore ‘site specific’ (Marshall and Rossman, 1999). The characteristics of the six schools are shown in Table 2.1.

Table 2.1: School Characteristics

<table>
<thead>
<tr>
<th>School</th>
<th>Total Roll</th>
<th>Percentage Free Meal Entitlement</th>
<th>Total staffing including LST and visiting specialists</th>
<th>Total Primary 1 - 3 classteachers</th>
<th>Total Primary 4 - 7 classteachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>187</td>
<td>82</td>
<td>11.62</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>183</td>
<td>80</td>
<td>11.55</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>125</td>
<td>16</td>
<td>6.74</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>195</td>
<td>81</td>
<td>11.24</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>90</td>
<td>90</td>
<td>6.16</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>247</td>
<td>41</td>
<td>12.23</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

The aim was to bring together different traditions of inquiry and methodologies to create a powerful research design that took due consideration of the range of phenomena under scrutiny, and addressed issues such as validity, reliability and bias.

**Methodology**

This section provides an overview of the methodologies employed in the study. Detailed accounts of each method, the instruments used and approaches to data analysis are found at the beginning of the chapters that relate to each data set gathered. The thesis is organised in this way so as to assist the reader keep track of the mixed-method approach, the range of instruments used and the different samples studied at different points in this longitudinal study.

In the selection of quantitative or qualitative methodologies, the researcher resisted adopting a purist position. As already stated, a mixed-method research design that employed both quantitative and qualitative methodologies was used to investigate the research questions. While recognising the differences in the philosophy underpinning these different approaches, the pragmatist position was adopted. Proponents of this view:

advocate the integrated use of different methodologies if this can advance our understanding about the phenomenon under investigation. (Niglas, 2000:1).
Central to the selection of methodologies was consideration of what was being studied. The diverse range of phenomena under investigation included: headteachers', classteachers' and learning support teachers' perceptions of the impact of the intervention; children's perceptions of the reading and writing process; as well as objective assessments of children's attainment outcomes and progress. Because of the complex nature of the context under study, different research strategies were more suitable for investigating different aspects. A multi-layered, mixed-method approach to data collection was adopted, whereby, quantitative data was used 'to complement the central core of qualitative analysis' (Layder 1993:127).

Qualitative methodology offered a holistic view of the process across schools, as well as allowing the individual experiences and perceptions of participants to be examined; while quantitative methodology provided complementary data sets that included objective measures of children's attainment and progress.

Participants

Children
The sample of children who took part in the study was randomly selected from the total population of Primary 1-4 children in each of the six project schools. The total number of children who took part in the study was 665. Detailed descriptions of the sampling procedures are given in Chapters 8 and 9 that deal with the data collected from children.

The number of children that made up the sub-samples used in different parts of the investigation are detailed in the relevant chapters.

Adults
The staff groupings within all the 6 schools were studied in their entireties. In total there were 57 adult participants. Table 2.2 offers a break down of the number of headteachers, classteachers at different stages, and learning support teachers in the study. Details of the sub-samples of these groupings who self selected to take part in some aspects of the study are detailed in Chapter 7.
Table 2.2: The sample of adult participants in the study

<table>
<thead>
<tr>
<th>School</th>
<th>Number of headteachers</th>
<th>Number of classteachers at the Primary 1-3 Stage</th>
<th>Number of classteachers at the Primary 4-7 Stage</th>
<th>Number of learning support teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total 6</td>
<td>Total 24</td>
<td>Total 21</td>
<td>Total 6</td>
</tr>
</tbody>
</table>

**Methods**

A range of data was collected from headteachers and teachers with the aim of gathering their perceptions of the impact of the intervention and finding out about the process of implementation. Data was also gathered to facilitate two main areas of investigation related to children’s attainment and progress. These investigations covered firstly, a comparison of the intervention group with a similar control group in terms of their performance on a battery of literacy tests. And, secondly, an examination of the factors affecting progress in literacy made by pupils at first follow-up (after one year of intervention) and at second follow-up (three years from the start of the intervention).

Pupil data was also gathered to facilitate an exploration of their perceptions of the reading and writing process. This area of investigation was not planned for in the original design, however the importance of finding out about pupils’ perceptions emerged during the course of the study in order to validate certain claims made by staff.

**Data sets collected**
- Headteacher individual interviews
- Primary 1-3 Classteacher group interviews
- Learning Support Teacher (LST) group interview
• Primary 1-7 Classteacher in-service evaluations
• Primary 1-7 Classteacher and LST questionnaires
• Classteacher diaries
• Classteacher presentations
• Headteacher/ Classteacher/ LST group discussions
• Children’s interviews/role-play
• Test results related to children’s literacy attainment and progress

Different methods and instruments were selected in order to gather the above data sets. These were:

• semi-structured interviews
• role-play
• questionnaires
• standardised tests
• diaries
• presentations
• group discussions
• evaluation forms

The aim was to use the most appropriate instruments to gather data in order to answer questions related to different aspects of the research; this was the primary consideration in the selection of different methods and instruments. A commitment to adhering to this principle resulted in the researcher designing a method for gathering authentic statements of children’s understandings about literacy (see Chapter 8) which sought to overcome the complex difficulties of interviewing young children that have been highlighted in many past studies.
Table 2.3 shows the longitudinal pattern of data gathering; it indicates the time scale and highlights when the different methods were used.

<table>
<thead>
<tr>
<th>Year</th>
<th>Phase of Intervention Study</th>
<th>School Term</th>
<th>Data Collected</th>
<th>Date</th>
</tr>
</thead>
</table>
|      | INITIATION                  | 1           | * Children Pre-Test Scores  
* Alphabet Knowledge  
* Reading  
* Spelling  
* Evaluation of Staff Training  
* Classteachers (incl P4-7)  
* LST  
* Classteacher Diaries | Aug/Sept 95 |
| 1    |                              | 2           | * Review Day Cluster Discussions  
* Headteachers  
* Classteachers (incl P4-7)  
* LST  
* Classteacher Diaries | 11 March 1996 |
| 1    |                              | 3           | * Interviews  
* Headteachers  
* Classteachers  
* LST  
* Classteacher Diaries  
* Children's Interviews | May/June 96  
* All Term  
* June 96 |
|      | CONTINUATION                | 4           | * Children Post-Test (1) Scores  
* Alphabet Knowledge  
* Reading  
* Spelling  
* Children's Interviews | Aug/Sept 96  
* October 96 |
| 2    |                              | 5           | * Questionnaires  
* Classteacher (incl P4-7)  
* LST  
* Presentations | March 97  
* 10 March 97 |
|      |                              | 6           | -               |               |
|      |                              | 7           | -               |               |
| 3    |                              | 8           | -               |               |
|      |                              | 9           | -               |               |
|      |                              | 10          | * Children Post-Test (2) Scores  
* Alphabet Knowledge  
* Reading  
* Spelling | Aug/Sept 98 |
| 4    |                              |             |                 |               |
| 5    |                              |             |                 |               |
|      |                              |             |                 |               |
| 6    |                              |             |                 |               |
Bias

It is important to clarify any researcher bias from the outset of a study (Merriam, 1988). The combination of the researcher/developer role in this study meant that this was a key issue to address. The advice offered by Marshall and Rossman (1999:28) was heeded in accepting that the 'challenge' was to demonstrate that what could have been construed as a 'personal interest' did not bias the study.

On this subject, however, it is also worth noting an alternative viewpoint put forward by Allington (2002) who suggests that when the researcher possesses a deep knowledge and familiarity with the intervention under investigation this adds to the validity of the claims that can be made about the findings.

A range of strategies was used throughout the study to lessen the possibility of researcher bias. These included:

- employing the technique of triangulation, whereby different data sources, data sets and methods were used to offer corroborating evidence, both in terms of participants perspectives, and the major themes that emerged from analysis of the data. (Denzin, 1978; Patton, 1990; Miles and Huberman, 1994)

- demonstrating a commitment to studying the process not only through qualitative methodologies, but also by employing objective measures of pupil attainment and progress to strengthen any claims made

- using measures of inter-rater reliability with some data sets

- organising for questionnaires and evaluations to be completed anonymously by the participants

- implementing standardised procedures for administering and marking tests

- recruiting volunteer diary writers who undertook sustained periods of documentation that produced detailed descriptions and analysis of their experiences; arguably if they had been offering a false impression this would have been hard to sustain over such a period.
Validity and Reliability

Clearly the above list of strategies, used to minimise possible bias, were also closely related to increasing the validity and reliability of the study. Increasing the validity was addressed through the depth and scope of the data gathered and the extent of triangulation used.

A commitment to the use of triangulation was central to this study. Various types of triangulation were carried out, including: methodological; time; space; combined levels (Denzin, 1970) and source and analysis level (Marshall, 1997).

As has already been discussed a range of methods was employed to gather data. This approach to triangulation helped to increase confidence that the data generated were not simply artefacts of the specific method of collection (Lin, 1976). Space triangulation was employed in that the study focused on six different schools. Longitudinal approaches allowed for triangulation of the data in terms of time. Combined levels of triangulation were employed in that the data were examined at different levels that included: children, teachers; learning support teachers; headteachers; year groups; schools; school groups and cluster level. Different approaches to data analysis were also triangulated; for example, assessments of children’s literacy performance that were analysed using statistical techniques were triangulated with qualitative data sets of teachers’ perceptions of children’s progress and attainment. Moreover, data generated from different sources, in terms of the different groupings of participants were triangulated. Interrelationships were explored using all these approaches to triangulation.

In terms of the assessments of children’s attainment and progress (see Chapter 9) reliability was increased by the use of standardised tests of aspects of literacy, and by taking measures to maximise the levels of parity in the procedure associated with the administration and marking of tests. Validity was maximised by randomisation of samples, the use of appropriate instrumentation and by using appropriate statistical treatments of the data (Cohen et al., 2000). The tests used to measure children’s literacy attainment demonstrated strong predictive validity. For example, Primary 1 children’s pre-tests scores were a significant predictor of literacy scores three years on (see Chapter 9). The tests also demonstrated concurrent validity in that children’s individual scores on the different literacy tests administered correlated highly. These were important findings as it is claimed that the existence of predictive and concurrent validity
increases the confidence with which claims can be made about findings, as well as increasing confidence that the test was measuring what was intended (Cohen et al., 2000; Schutt, 2001). In terms of the validity of the tests in relation to their relevance to the whole range of possible literacy behaviours, it is important to note that any claims made about children's literacy skills, based on the outcomes of these tests, relate to the aspects of literacy that they were set up to measure: word reading, spelling and alphabetic knowledge. So, for example, no claims related to comprehension skills are made on the basis of the tests used.

The internal validity of the study was increased both by the longitudinal nature of the investigation; and by considering the amount and kinds of evidence needed in relation to the claims being made (Hammersley, 1992a). An example of the latter was when classteachers and headteachers in certain schools reported that children were demonstrating an awareness of the utility of strategies they had been taught, and measures were then taken to validate these claims by gathering data from the children concerned. This was an example of seeking convergent validity.

There are few studies of intervention that have adopted a longitudinal design. Cohen and his colleagues posit that 'The vast majority of studies in the social sciences are conducted at one point only in time, thereby ignoring the effects of social change and process' (2000:113). In this study, the key reason for selecting the longitudinal design was to increase the validity of the findings by gathering the data over a time scale that was appropriate for examining the impact of the intervention, both in terms of pupil outcome measures of attainment and progress, and participants perceptions of the process of implementation and change.

**Generalisability**

A wide perspective on gathering evidence related specifically to process, as well as outcomes was adopted. This strategy was implemented with the aim of increasing external validity in terms of the degree to which the results could be generalised to the wider population or to similar situations. Bechhofer and Paterson (2000:50) claim that:

> The more the study uncovers the workings of a process, the more confident we often are that it may be of more general application, because understanding a process gives us confidence that we know why some change or procedure has been effective. The better the theory we can build or develop, the more likely it is that we can apply these findings elsewhere.
The replication of some of the key findings using different methods also strengthened some of the claims made in terms of the capacity to generalise more widely from the study. De Vaus (2001) argues that there are two types of generalisation: statistical and theoretical. The first relies on statistical probability for the basis for generalising findings to a wider population, while theoretical generalisation is concerned with generalising from a study to theory. Any claims associated with generisability made in this study were categorised using this distinction.

**Ethical issues**

Official permission to carry out the research study in the six schools was sought from the local authority. A senior member of the education department responded in writing, granting permission for the study to be undertaken. The education department was aware when they granted permission that the headteachers of the schools had already agreed in principle that the researcher could undertake the longitudinal study in their schools. The six headteachers had voluntarily opted to undertake a literacy intervention in their schools and had approached the researcher to undertake the associated staff development work.

The researcher and headteachers met to discuss the nature and scope of the research study. During this meeting a range of issues and points of organisation were discussed. These included: the aims of the research; the design and methods to be used; the tests that were to be administered; the sample size; the participants who were to be interviewed; the time scale for the research; and plans for disseminating aspects of the work. The headteachers then got agreement from their staff for the research to be undertaken. It is worth noting that in view of the reluctance of some staff to undertake the national testing programme that was being introduced during that period in Scottish schools, both the researcher and the Headteacher group anticipated that the extent of testing to be carried out during the study would be a potential source of tension amongst staff. However, this concern proved to be unfounded and headteachers reported at a subsequent meeting that staff in their schools were willing to permit the use of a range of literacy tests.

Staff were informed that any questionnaire or evaluations should be completed anonymously, and that all information gathered would be treated with confidentiality. Permission was granted by headteachers and their staff to tape-record all interviews. Face to face interviews meant that
anonymity could not be assured, however confidentiality was promised. Staff were informed that only the researcher would have access to the tapes and the transcripts, and there would be anonymity in that fictional names would be used both for staff and children. Participants were advised that schools would be identified only by code numbers.

All children involved in the study were assigned a code number and were only referred to by fictional names. Particular ethical issues arose in connection with seeking informed consent from the young children involved in the study. Cohen et al. (2000:52) recommend that when children are participants in a research study researchers must go through two stages. They should first:

consult and seek permission from those adults responsible for the prospective subjects; and, second, ... approach the young people themselves.

In this study the researcher gained permission from the headteachers and the classteachers who were acting in loco parentis for the children. The parents of all the pupils in the school had been informed that their children were taking part in an intervention research project, and the testing of the children and subsequent conversations with them about literacy were viewed as part of the project. The researcher is aware that in recent years there has been an increased sensitivity towards researching young children and more structured guidelines exist for obtaining parental consent. However, in this study, at the time when data gathering was undertaken, the level of consent obtained was viewed as satisfactory. Moreover, the ‘credentials’ of the researcher were viewed as acceptable by the headteachers and staff in that the researcher was registered with the General Teaching Council, had many years of experience as an infant teacher, and had been an Assistant Headteacher with responsibility for an infant department in a local authority school.

No matter how young the children are, it is claimed that some attempt should be made to offer them an explanation about the nature of the research in order to gain their informed consent (Fine and Sandstrom, 1988). Clearly, in view of the age of the children in this study, explaining the research was problematic. However, taking account of the recommendations offered by a range of workers in the field (Greig and Taylor, 1998; Holmes, 1998; Lewis and Lindsay, 2000; Lewis, 2000), as well as using extensive personal experience of working with young children, the researcher offered the young children explanations that took account of their ages and possible levels of understanding. All of the interviews, role-play and testing were conducted
either in the classroom or in nearby open plan bays. Importantly, children were invited to take part, and were told they could ‘stop playing’ whenever they wanted. They were offered ‘the right to opt out’ if they wanted ‘before or during’ the proceedings (MacNaughton et al., 2001:166).
CHAPTER 3
THE EARLY INTERVENTION PROGRAMME USED IN THE STUDY

The overarching aim of the intervention programme used in this study was to raise literacy standards in the six participating schools. More specifically, the intervention was aimed at both preventing early failure in the acquisition of literacy skills and providing early support for children who were experiencing difficulties.

This chapter provides a brief summary of the recommendations for classroom practice that underpinned the intervention programme. The publication *The Early Intervention Handbook: Intervention in Literacy* (1998) written by the researcher and Greg McMillan, offers a detailed description of the programme and rationale.

Over two school years, all headteachers and teaching staff in the study attended five half-day development sessions designed to support the delivery of the programme. The aims of these sessions were: 1) to explore the evidence-base underpinning the intervention; 2) to examine the implications for practice; and 3) to translate these findings into specific activities and approaches. An earlier draft of *The Early Intervention Handbook* mentioned above was issued to all participants. The programme of intervention used in this study had developed from earlier work undertaken by McMillan and the researcher in the Pilton project (McMillan and Leslie, 1998, McMillan, 1995) The recommendations for literacy teaching were in line with findings from research at that time (see Chapter 2) and sought to offer a comprehensive approach that encompassed a range of practices.

The following lists the key content covered in the training sessions and in the handbook:
- a whole-school review of literacy practice
- studies of early intervention
- the rationale for the project recommendations
- developing the literacy environment
- developing literacy through play
- parental involvement
• providing frequent and meaningful literacy opportunities
• increasing the time spent on supervised reading
• independent writing
• concepts about print
• phonological awareness
• phonemic awareness and the alphabetic principle
• rime, onset and analogies
• sight word acquisition
• spelling strategies

Recommendations were given about methodology and resources. Teachers were encouraged to use recommendations to develop comprehensive programmes of literacy instruction that were specifically tailored to meet the needs of the children in their schools. So, crucially, while offering a framework, this approach to early intervention also aimed to encourage teachers to use their professional judgement.

The fundamental curricular recommendation were as follows:
• Children should hear books being read on a daily basis
• Every child’s reading should be heard daily.
• Children should be taught about the concepts of print.
• Every child should be taught the letters of the alphabet.
• Children should be given experiences to develop awareness of the sounds in spoken language.
• Children should receive training in sound awareness combined with work on analogies and word patterns.
• Children should be given the opportunity to write independently from the earliest stages.
• Children should be taught to read the most common words.
• Parental involvement and support should be actively promoted.

The advice was that these recommendations should ‘be implemented in the context of a literacy-rich environment in which children are encouraged to develop their enjoyment of all aspects of reading and writing’ (McMillan and Leslie, 1998:10).
Early Intervention Programme Planning Guidelines

Before the schools took part in the staff development sessions, the headteachers were issued with planning guidelines. These were discussed by headteachers and their staff during the first stage of the Initiation Phase, prior to embarking on the intervention project.

A brief summary of these guidelines follows:

Staff Development
To encourage a whole school approach to the intervention it is advisable that all members of staff attend the development sessions. A handbook detailing the recommendation for classroom practice will be provided for all staff.

Curriculum
During involvement in the early intervention programme the amount of time spent on literacy activities will necessarily increase. There should be a commitment to a balanced approach to the teaching of reading and opportunities for independent writing are essential from the earliest stages.

Resources
Essential resources are: alphabet mat and tiles; alphabet books; letters (plastic, magnetic, wooden etc.) and trays; rhyme books and tapes; word, letter and picture cards; big books; rime and analogy materials. Many other recommended resources are listed in the handbook.

Community Links and Involvement of Other Agencies
All available options to increase the amount of supervised reading and literacy work for pupils should be considered. Where possible adults, local agencies and groups can be recruited to assist with the project.

Parental Involvement
Strategies to promote parental involvement in children’s acquisition of literacy skills are central to the early intervention initiative. A range of ways that parents can be involved, both at home
and at school, will be discussed during the training. It is important that the aims of the project are shared with parents.

**Deployment of Learning Support Staff**

It is recommended that headteachers review the deployment of learning support staff within their schools and consider allocating learning support time to the Primary 1 and 2 classes.

**Regular Review Meetings**

It is recommended that regular review meetings are planned for staff to share ideas and resources, discuss issues and to reflect upon their practice.
CHAPTER 4

THE INITIATION PHASE

The initiation phase of this study involved three stages. Firstly, the decision taken by the six cluster schools to embark on the literacy intervention; secondly, the decisions to involve outside agents and to adopt the intervention programme; thirdly, participation in the training programme. This chapter focuses mainly on the third stage of the initiation phase, however, it also offers some insights about participants’ perceptions during stage one and two at the start-up of the project.

Background data was gathered during two meetings with headteachers during stage two of the initiation. The six headteachers reported that phase one had centred on the decision to implement a strategy aimed at raising children’s literacy attainment. This decision was in response to findings from school reviews undertaken as part of the development planning process. Headteachers reported that the decision to embark on an intervention project had not been imposed from outwith, but had arisen from a need identified by school staff. They reported that the initiative was classified as a priority at both school and cluster level. They emphasised that their staff were all in agreement with the proposal.

The review of the literature related to the process of change suggested that ‘...the three R’s of relevance, readiness, and resources’ (Fullan, 1991:63) provided an appropriate framework for exploring participants’ perceptions of the initiation phase.

Factors which headteachers’ claimed had instigated the initiation of the intervention, indicated that, from the outset, elements of ‘relevance’ and ‘readiness’ could be identified. The decision to adopt the intervention appeared to indicate that participants believed it could address a perceived need within their schools, and suggested that they believed in its utility. Moreover, headteachers emphasised that all funding for implementation came from their school budgets and the local authority had provided no extra funding. On the face of it, these findings seemed to demonstrate the group’s endorsement of the relevance of the intervention, and provided a strong indication of their ‘readiness’ to adopt it.
During the second stage the headteachers met with developers to discuss the planning and implementation of the initiative. All the headteachers indicated that they, and their staff, were in agreement with the framework that underpinned the initiative and intended to promote the implementation of the recommended strategies. This seemed to indicate the ‘readiness’ of the group to adopt the innovation. It also indicated that they believed the aims of the initiative were relevant in terms of addressing the identified needs within their schools.

To facilitate the process of implementation all gave a commitment to providing extra resources that included access to staff development training, and the purchase of specific materials. While resource requisition would be the budget priority, they emphasised that they had limited finances available. They agreed to consider the redeployment of staff, particularly regarding the learning support allocation at the Primary 1-3 stage.

During these first two stages of the initiation phase, there were only headteachers’ reports, about classteachers’ and learning support teachers’ views. The following section focuses on stage three during which data were gathered directly from classteachers, learning support teachers and headteachers about their perceptions of the initiative.

The Initiation Phase: Stage Three

During the third stage headteachers and staff took part in three, half-day training sessions. In the first session the six schools met together and in the following two sessions staff in one school joined with another. Participants studied the programme recommendations for classroom practice and the research and theoretical framework underpinning the intervention. After the last two sessions participants were asked to complete evaluation forms.

The evaluation form used to gather data was the standard form issued by the local authority education department. (See Appendix 1.) The Headteachers were keen that this form should be used because they felt that teachers were ‘familiar with it,’ and because it gave the intervention project a local authority ‘seal of approval’.

Some difficulties had been identified with the form during trialing. In Question 1 and 2 it was not obvious to many respondents that two scaled responses were required. For example, in
Question 1, two questions were asked about the aims of the session in the same sentence: *Were these clear and were they realised?* Many only responded to the first question. It was important to take this into account in the analysis. However, overall, the advantages in using the evaluation form far outweighed the disadvantages. The open-ended nature of Questions 4 and 5, and the opportunity for respondents to make written comments in other parts of the form provided rich data about participants' perceptions.

**Analysis of the data.**

The design of the evaluation form meant that it was possible to stratify the target population for the purpose of exploring contrasts and similarities in the perceptions of class teachers, learning support teachers and headteachers.

In the analysis three main stages were undertaken (Munn and Drever 1996). In the first stages of data preparation a grid system was used to chart the replies. Where scaled questions were used, the number selecting each category was counted. In questions where participants made a written statement these responses were coded in relation to aspects of relevance, readiness and resources: categories identified as critical at the start-up of an initiative. Questions, related to sub-categories for each category were used as a tool to facilitate the classification of participants' responses. The questions were adapted from the work of Crandall and colleagues (1986) and Fullan (1991).

A colleague and the researcher independently coded a sample of the evaluations to test the validity of these categories and the reliability of the coding procedures. The categories and coding scheme were described to the colleague, who then worked through a sample coding the replies. The inter-rater agreement between the two coders was 93%. Data were organised using the categories and a summary table of each major category was created. The data were described and finally they were interpreted in the context of the other data sets gathered as part of the study.
Stage 3 of the Initiation Phase: Primary 1-7 Classteachers’ Perceptions

Category: Relevance of the Initiative to the Individual

Table 4.1 shows the questions used to classify responses that fell into this category. Responses in each sub-category were rated as affirmative, qualified or negative. Table 4.1 shows examples of written statements for each sub-category. Table 4.2 summarises the number of responses rated as affirmative, qualified or negative.

Table 4.1: Category: Relevance of the Initiative to the Individual. Primary 1-7 Classteachers’ statements

<table>
<thead>
<tr>
<th>Sub-category Question (Note 1)</th>
<th>Example of response rated as ‘affirmative’</th>
<th>Example of response rated as ‘qualified’</th>
<th>Example of response rated as ‘negative’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did they have a clear understanding of the goals and means of implementation?</td>
<td>I feel more confident about implementing the strategies and activities which we have discussed today. The purpose of these strategies and activities is now very clear.</td>
<td>Relevant, but a lot to take in, handbook should help.</td>
<td>Too much reference to research and evidence without facts... seem to be saying emphasise reading and do a bit of everything</td>
</tr>
<tr>
<td>Did the initiative address a perceived need?</td>
<td>There is a need for time to be spent on literacy teaching</td>
<td>No example available</td>
<td>No example available</td>
</tr>
<tr>
<td>Did they view the intervention as beneficial for teachers and pupils?</td>
<td>I feel that I, and the children in the class have already benefited greatly from the input, and I am already using some of the suggestions in the classroom.</td>
<td>Good explanation of theory, but more emphasis on the practical implications needed to help our teaching.</td>
<td>I don’t think it will work for some children.</td>
</tr>
</tbody>
</table>

Note 1: Questions adapted from Crandall et al. (1986) and Fullan (1991).

Table 4.2: Relevance of the Initiative to the Individual. Primary 1-7 Classteachers’ Perceptions

<table>
<thead>
<tr>
<th>School</th>
<th>Number of evaluation forms</th>
<th>% evaluation forms returned</th>
<th>Relevance to the individual</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>affirmative statement</td>
</tr>
<tr>
<td>1</td>
<td>18</td>
<td>100</td>
<td>27</td>
</tr>
<tr>
<td>2</td>
<td>18</td>
<td>56</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>100</td>
<td>14</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>88</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
<td>100</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>16</td>
<td>100</td>
<td>5</td>
</tr>
</tbody>
</table>

Note 1: Classteachers could make as many comments as they wished. Examples of comments from this category are given in Table 4.1.

Note 2: Each classteacher was issued with two evaluation forms.
Did they have a clear understanding of the goals and means of implementation?

In all schools, the majority of teachers seemed to have a very clear idea of the goals of the intervention. Statements included: ‘a whole school approach to improving literacy skills,’ ‘an increased focus on literacy,’ and the aim of ‘preventing early reading failure’.

In all schools there was evidence to suggest that teachers had an understanding of how to implement a range of the programme recommendations. However, in Schools 2, 3, 4 and 5 some respondents qualified their affirmative statements or made a negative statement voicing uncertainties about their understanding of the programme content. They raised concerns about there being 'a lot to take in' and 'much to absorb.' Some believed there was an overemphasis on theory and some stated that the means of implementation were not clear.

Table A (Appendix 2) summarises responses to a question about the aims of the development sessions. There was a high response rate about the clarity of the aims, with between 80-100% selecting either, ‘very clear’, or ‘clear’. There was a high percentage of missing data from the part of the question that asked whether the aims had been ‘realised’. The difficulties with this question have already been discussed and any interpretation must be made with caution. However, in the majority of schools, of those who responded less than half believed that the aims of the training session had been realised.

Drawing on responses to both open and closed questions, it seemed that almost all participants were very clear about the goals of the project. However, in over half the schools there was some uncertainty about the means of implementation.

Did the initiative address a perceived need?

Table 4.1 shows that all statements that fell into this sub-category were rated as affirmative. Both infant (P1-3) and upper classteachers (P4-7) in Schools 1, 3, 4 and 5 believed that the intervention was addressing a perceived need and stated that more time should be spent on literacy. Some made references to the ‘relevance’ of both the initiative and the training. The following comments were typical:

This is so relevant for our children. (School 4)
I have some very useful ideas to develop in my class as a result of this in-service.(School 1)

There were no comments from class teachers in Schools 2 and 6 in this sub-category.

There was a high percentage of missing data from the second part of Question 2 about the relevance of the aims of the training session (Table B Appendix 2). Of those who answered, in four schools, 50% or less felt that the course content was either ‘very relevant’, or ‘partly relevant’.

**Did they view the intervention as beneficial for teachers and pupils?**

Class teachers from all schools cited a range of benefits. These included: opportunities to review and develop their literacy practice; getting ‘useful and practical advice’; and having access to ‘good explanations of theory’.

In Schools 1, 3 and 4, there were specific reference to positive benefits for children. In the other three schools there were no mentions of this. Teachers from Schools 2 and 5 questioned how effective the intervention strategies would be for a particular group of children who, they believed, were ‘disadvantaged’ because of ‘growing up in poverty’, and ‘despite hard work by other teachers’ had made very little progress in their acquisition of literacy skills.

There was considerable divergence of opinion within, and between schools, in relation to perceptions of the utility of the guidance given during the training programme. All teachers in School 1 and many in School 3 believed it was ‘useful’ and referred to the range of ‘practical’ suggestions offered. In direct contrast to this, some participants in the other four schools stated that there needed to be more emphasis on the practical implications. Interestingly, others working in these same schools held opposing views and commented positively on the practical aspects and utility of the recommendations.

Overall, in the category ‘Relevance of the Initiative to the Individual’ the data from School 1 was striking (see Table 4.2). Every Primary 1-3 and more than half the Primary 4-7 teachers made a statement categorised as affirmative. In this school there was a strong consensus that the initiative was highly relevant. The following comments give a flavour of the strength of these beliefs:
Very realistic and true to life and adaptable to individual teacher’s style/method. (School 1)

An increasing awareness of how easy it is to underestimate what our children are capable of. Letting them take control of aspects of their literacy learning is so empowering. They are desperate to write/read learn about letters. It feels great. (School 1)

These claims made in the second quotation about reviewing expectations of the children’s capabilities were echoed by other classteachers in this school.

The data, particularly at the Primary 1-3 stage, from School 3 also indicated very strong positive views in terms of the relevance of the initiative.

Category: Readiness of the Individual

Table 4.3 shows the questions used to classify responses that fell into this category. It also shows written statements in each sub-category and provides examples of how participants’ responses were rated. The number of responses for each rating was calculated and Table 4.4 summarises the findings for the overall category.

<table>
<thead>
<tr>
<th>Sub-category Question (Note 1)</th>
<th>Example of response rated as 'affirmative'</th>
<th>Example of response rated as 'qualified'</th>
<th>Example of response rated as 'negative'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Were they reasonably receptive to implementing the intervention</td>
<td>The intervention project is covering everything I am interested in - fantastic.</td>
<td>I’ll read handouts, think about it and implement what I feel would be most beneficial to the children.</td>
<td>Continuing with the methods being used at present.</td>
</tr>
<tr>
<td>Did they have the necessary knowledge and skills?</td>
<td>Making a big effort to exploit all opportunities for teaching reading and writing in class. Continuing with intensive rhyming/analogy work already started. Adding more environmental print around school. Teaching 50 Common words.</td>
<td>Lists of methods and strategies very helpful and clear, but actually seeing them on video would help.</td>
<td>No example available</td>
</tr>
<tr>
<td>Did they have the time?</td>
<td>No example available</td>
<td>The only worry is the time factor.</td>
<td>Too much for the time given</td>
</tr>
</tbody>
</table>

Note 1: Questions adapted from Crandall et al. (1986) and Fullan (1991).
Table 4.4: Readiness of the Individual: Primary 1-7 Classteachers’ Perceptions 1

<table>
<thead>
<tr>
<th>School</th>
<th>Number of evaluation forms issued</th>
<th>% evaluation forms returned</th>
<th>Relevance to the individual</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Affirmative statement</td>
</tr>
<tr>
<td>1</td>
<td>18</td>
<td>100</td>
<td>33</td>
</tr>
<tr>
<td>2</td>
<td>18</td>
<td>56</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>100</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>88</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
<td>100</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>16</td>
<td>100</td>
<td>9</td>
</tr>
</tbody>
</table>

Note 1: Classteachers could make as many comments as they wished. Examples of comments from this category are given in Table 4.3.
Note 2: Each classteacher was issued with two evaluation forms.

Were they reasonably receptive to implementing the intervention?

Teachers from all schools reported that they intended to implement certain strategies, or review aspects of their practice. In Schools 1, 2, 3 and 5 some reported that they had already started using recommended strategies and some also indicated their positive receptiveness to adopting the innovation:

- Doing it—enjoying it. (School 5)
- A fired enthusiasm to implement new ideas in the classroom and regenerate old ideas. (School 2)

Responses to Question 5: ‘What personal action do you envisage arising from this in-service?’ provided data about participants’ readiness to implement the initiative. Positive responses provided evidence of a written commitment at the start-up, in terms of some willingness to take part in the initiative.

Table 4.5 shows the overall return rate and the percentage of evaluations that included a written response to Question 5. In all cases where a written response was given it offered a positive indication of intent. Responses fell into different categories of implementation and these will be discussed later in the section.
Table 4.5: Percentage of Primary 1-7 classteachers’ evaluation forms that included a written response to Question 5: What personal action do you envisage arising from this in-service?

<table>
<thead>
<tr>
<th>School</th>
<th>P1-7 - Total % evaluations returned</th>
<th>P1-7 - % of evaluation forms with response to Q5</th>
<th>P1-3 - Total % of evaluations returned</th>
<th>P1-3 - % of evaluation forms with response to Q5</th>
<th>P4-7 - Total % of evaluations returned</th>
<th>P4-7 - % of evaluation forms with response to Q5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100</td>
<td>94</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>88</td>
</tr>
<tr>
<td>2</td>
<td>56</td>
<td>39</td>
<td>70</td>
<td>60</td>
<td>38</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>100</td>
<td>84</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>67</td>
</tr>
<tr>
<td>4</td>
<td>88</td>
<td>69</td>
<td>100</td>
<td>75</td>
<td>75</td>
<td>63</td>
</tr>
<tr>
<td>5</td>
<td>100</td>
<td>80</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>100</td>
<td>50</td>
<td>100</td>
<td>63</td>
<td>100</td>
<td>38</td>
</tr>
</tbody>
</table>

In all schools more infant than upper school teachers responded to Question 5. This may have been connected with the content of the in-service which, by the nature of the initiative, was more focused on early literacy acquisition. However, the range in the percentage of responses from Primary 4-7 teachers in the six schools was noteworthy: School 1 demonstrated a response rate of 88%, compared to School 2 with 13%.

Study schools 1, 3 and 5 showed a 100% response rate from Primary 1-3 teachers to Question 5. Importantly, these three schools each had 100% return rate, overall (see Table 4.5). This, therefore, demonstrates 100% response rate at the infant stage in terms of teachers’ written commitment to take personal action. An examination of the whole school (Primary 1-7) response rate to Question 5 shows that these three schools are again ranked in the top three.

The whole school (Primary 1-7) response rate is of particular interest because of the importance in the literature assigned to the willingness of participants to give a written commitment to implementation at the start-up of an initiative. It is interesting to compare the response rates in the study with the 75%-80% participation level stipulated for entry to certain interventions (Slavin, 1997; Taylor et al., 2000). Had a rule of whole school written commitment to implementation been administered, only Schools 1, 3 and 5 would have qualified for entry.

Responses to Question 5 were organised under the following three categories.
Written commitment to:
1. implement the intervention, but without mentioning a specific strategy
2. implement a specific strategy
3. reflect on / review own practice, in the light of the recommendations

Table 4.6: Primary 1-7 Class teachers’ Responses to Question 5

<table>
<thead>
<tr>
<th>School</th>
<th>Total number of evaluations returned</th>
<th>Category 1 Number of mentions of general intention to implement strategies</th>
<th>Category 2 Number of mentions of intention to implement a specific strategy</th>
<th>Category 3 Number of mentions of intention to reflect on/review own practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18</td>
<td>9</td>
<td>21</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>5</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>1</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
<td>8</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
<td>8</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>16</td>
<td>3</td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 4.6 shows that some teachers in all schools made a written commitment under Category 1. These were all general statements about the implementation of the initiative.

Examples coded in Category 2 were also found in each school. The following are representative of the specific strategies mentioned:

Teaching common words. More rhyme. Using plastic letters to develop spelling. Gentle encouragement to write independently. (School 3)

I will be encouraging more independent writing and I’ll implement the spelling strategies. (School 4)

There was a range of examples in this category from each school. However, a distinct pattern of responses emerged in two schools. In Schools 1 and 3 (where there was 100% return rate from Primary 1-7) almost all the teachers stated that they intended to implement a specific strategy from the programme. It is also noteworthy that School 1 was the only school where every Primary 4-7 teacher made a written comment in this category.
In Schools 2, 3 and 5, after the first session, individual teachers mentioned that they had started implementation. In School 1, interestingly almost half the staff reported that they had started and commented favourably on using the strategies. The following comments illustrate the consensus within this group:

I have personally used a lot of the ideas, suggestions and activities in the classroom and I am already reaping the benefits. (School 1)

Very exciting and big dividends showing already with the Primary 1 children showing an interest in words, sounds, letters etc. (School 1)

With the exception of School 2, there were responses that fell into Category 3 in all the schools. These were almost equally divided between the Primary 1-3 and the 4-7 teachers. Many referred to their intentions to review aspects of their literacy teaching, with the methodology for teaching writing mentioned most frequently. Some in Schools 1, 3 and 6 said they would volunteer to keep a diary during implementation because they believed this would be a way of ‘monitoring progress’; and a tool for ‘revising and re-evaluating’ their practice. In School 5 a participant pointedly stated her intention to retain professional control:

I’ll read handouts, think about it, and implement what I feel would be most beneficial to the children. (School 5)

Adding together the number of mentions in the three categories related to implementation the data from School 1 are striking (see Table 4.6). Participants made more than double the number of statements about intended action than any other school. On the face of it, this may be an indication that teachers in this school had a higher level of receptiveness to adopting the initiative. It could be argued that the high number of mentions in both Category 2 related to implementing a specific strategy and Category 3 concerned with adopting a reflective approach, is a particularly powerful combination in terms of the implementation process. School 3 had the second highest-ranking number of mentions in both these categories.

Classteachers’ statements about how they intended to move forward with implementation is clearly important and provides insights about each school’s readiness to adopt the initiative. However, interpretation of this data is complex and throws up many questions about how to make sense of participants’ responses. What did the responses in the different categories tell us?
Were teachers who indicated that they intend to implement a specific strategy demonstrating a
greater commitment than those who make a general statement? Or, were participants merely
using a general statement as a way of summarising their intentions? Mentioning a specific
strategy may have indicated a clearer understanding of the means of implementation and a
deeper engagement with the content of the training programme. A commitment to implement a
specific strategy could be interpreted as a more binding tie than a statement about a more general
intention and offer harder evidence of receptiveness to adopting the initiative. Moreover,
participants' statements of their intention to reflect on, or review their existing practice could be
interpreted as sign of a reasoned, thoughtful approach or as a barrier to actually moving on with
implementation.

Did they have the necessary knowledge and skills?
Responses showed that in all the schools many participants had some knowledge of the project's
recommended strategies. Some teachers were already introducing them and some stressed that
they were not new to their teaching repertoire. In contrast, a few teachers in Schools 4, 5 and 6
felt they needed much more explicit advice about how to proceed. They suggested the use of
video materials as an effective means of, as one put it, 'seeing the methods and suggestions in
action.'

In Schools 1, 2 and 3 some explicitly stated their intention to further their understanding of early
literacy development by engaging in 'more personal reading' and 'studying' handouts and the
intervention manual.

Did they have the time?
Interestingly, only two teachers specifically mentioned their concerns about the 'time factor'
connected with implementation and, indeed, one qualified her statement by stating that:

Despite the time difficulties, I will ensure that all children read everyday. (School2)

That only two teachers indicated concerns about having the time to implement all the project
recommendations is a surprising finding in light of the data collected at later points in the study
when time pressures were found to be one of the major difficulties associated with
implementation.
Another time theme emerged from Schools 2, 3, 4 and 6 where classteachers emphasised their concerns about the lack of time allocated for the training sessions. Some described these sessions as being ‘rushed’, and ‘very intensive.’ A few mentioned the lack of time available for discussion and, in School 3, 33% of responses to Question 2 (see Table 4.8) were in the category ‘too much’ in terms of the amount of content covered. Respondents had different views about the number of training sessions offered. Some thought there were too many; for example in School 5, a teacher stated that the final session ‘was not necessary’. Conversely, in School 1, teachers expressed satisfaction with the ‘pacing’ and ‘amount’ of in-puts.

Importantly, there were clear indications that groups of classteachers in over half of the study schools had concerns about the overall lack of time allocated for training.

Category: Resources
In Schools 3 and 4, while indicating their willingness to take part, classteachers also expressed concerns about their lack of access to the recommended resources. There were no other references to resources. The paucity of statements falling into this category is surprising in light of the strong views that emerged during the implementation phase about the importance of human and material resources.

Stage 3 of the Initiation Phase: Learning Support Teachers’ Perceptions
The data gathered from learning support teachers were analysed using the same framework of ‘relevance, readiness and resources.’ The same range of questions was used as a tool to aid classification of responses.

Five of the six learning support teachers returned evaluation forms. There was a nil return from School 3. Because of the small sample size no attempt was made to quantify the statements made by each school. Rather, a more general picture of the perceptions of the group of learning support teachers is described, and agreement or dissonance with classteachers’ and headteachers’ views is highlighted.
Category: Relevance of the Initiative to the Individual

Did they have a clear understanding of the goals and means of implementation?

Learning support teachers believed that they had a clear understanding of the goals of the initiative. They all reported that they found the aims of the training sessions to be either 'very clear', or 'clear' and indicated that they understood the means of implementation.

Did the initiative address a perceived need?

There were no statements directly related to the initiative addressing a perceived need. This is surprising considering Headteachers' reports that it had been a collaborative decision to adopt the initiative, in response to an identified need. Possibly, the absence of statements merely indicates that the learning support teachers had already accepted this principle.

Discussing the training sessions, one indicated that she would like to 'see more of this valuable input from outside agencies.' In sharp contrast to this view, three believed that there was 'nothing new,' arising from these sessions. One participant selected 'irrelevant' in terms of her assessment of course content, and added the phrase -'to me!' The following succinctly sums up this view:


Very good for my self-esteem - very little mentioned this afternoon I'm not already doing, and, which I've not been doing for years. (School 5)

Another learning support teacher in this group felt that the classteachers in her school also 'already understood and carried out' much of the 'stuff covered.'

Did they view the intervention as beneficial for teachers and pupils?

Few comments directly fell into this sub-category. This contrasts markedly with the data from the classteachers. Affirmative responses were given by only two of the learning support teachers. In School 5, one felt that it was important that all teachers participated, while in School 1 the respondent thought there were benefits because the whole staff, including 'management,' had been 'together and heard the same message,' at the training sessions.

A notably less positive view was offered by the respondent in School 4. She echoed the opinion of the headteacher and classteachers in her school when she said that rather than hearing about
theory, more practical help to implement the programme was needed.’ She also stressed that while she intended to ‘work intensively’ with children at the Primary 1-3 stage, she believed that this would be ‘to the detriment’ of the older children. Two participants made no comments that fell into this category.

Category: Readiness of the Individual

Were they reasonably receptive to adopting the innovation?
The learning support teachers’ responses to Question 5: *What personal action do you envisage arising from this in-service?* provided some insights about the level of their receptiveness to adopting the innovation. All five responded to Question 5 about intended personal action and all but one of these responses was positive.

Response were organised using the following categories:
Written commitment to:
1. implement the intervention, but without mentioning a specific strategy
2. implement a specific strategy
3. reflect on/review own practice, in the light of the recommendations

All the statements fell into Categories 1 and 2. Unlike the classteachers’ responses there were no references about reflection or review. Those in Category 1 were all general statements of intention to implement the project. The majority of comments fell into Category 2, and almost all described participants’ intentions to change the focus of their work to the early years’ classes. The participant from School 5 believed that she was already using most of the programme strategies, but added that she planned to do ‘even more of what I’m doing.’ In contrast to this the respondent from School 6 said she would be ‘continuing as was.’

Respondents from School 1 and 5 highlighted the particular, organisational role that they had been assigned. It was clear that they felt that they had a key role to play during the implementation of the intervention. Describing the personal action she intended to take one said:

Becoming school co-ordinator for project and taking active part in organising whole school approach to literacy. (School 1)
On the face of it the above data present some surprises in that only two of the learning support teachers perceived themselves to have a key role in taking the initiative forward.

*Did they possess the requisite knowledge and skills?*
All believed they had the requisite knowledge and skills. Indeed, many felt that not only were they familiar with most of the recommended strategies, but they were also using these in practice.

*Did they have the time?*
Three expressed concerns about an ‘on-going problem’ with lack of time. Another stressed that any extra time given to the younger children had to come from ‘somewhere else’. Time allocation became a critical issue for the majority of participants during the implementation phase, and interestingly, unlike their classteacher colleagues, the learning support teachers predicted the difficulties that were to emerge.

**Category: Resources**

*Had consideration been given to both identifying, and providing for resources?*
Like the classteachers they made very few references to resource issues. A couple thought the handouts and the intervention manual were ‘excellent’ while another wrote that she would not ‘have the time to read them.’ The small number of mentions in this category is worth noting considering the importance assigned to resources at later points in the study

**Headteachers’ Perceptions During Stage 3 of the Initiation Phase**
The same framework of categories ‘relevance readiness and resources’ was used to analyse the headteachers’ responses. Because of the small sample size no attempt was made to quantify the statements. Rather, a more general picture of the perceptions of the headteacher group is described, and agreement or dissonance with the views of their staff are highlighted. There was 100% return rate from the six headteachers.

**Category: Relevance of the Initiative to the Individual**

*Did they have a clear understanding of the goals and means of implementation?*
Headteachers believed they had a very clear understanding of the goals of the initiative and all reported that they found the aims of the training sessions to be very clear. Unlike some
classteachers, who had voiced uncertainties about their understanding about how to implement the programme, none of the headteachers gave any indication that they were unsure about this. The description of strategies they said that they intended to implement demonstrated their knowledge of aspects of the content of the programme. These strategies were mainly connected with aspects of the management of the initiative, however, more than half also specifically mentioned some of the teaching recommendations.

**Did it address a perceived need?**

There were very few statements about the initiative addressing a perceived need. This is perhaps not surprising because the evidence from Stages One and Two indicated that headteachers had already unanimously accepted this principle. They all wrote positive comments about the relevance of the training sessions. One remarked that the sessions had ‘been planned well to facilitate needs,’ and another described them as ‘very relevant and down to earth’

**Did they view the intervention as beneficial for teachers and pupils?**

All believed that the initiative would be of benefit to both teachers and children. Moreover, the Headteacher from School 1 believed that it might have a positive impact on her own professional development. She described her involvement as a chance for ‘re-teaching of myself,’ and added that in terms of her school it was ‘a real movement forward.’ Interestingly, her highly positive view of the relevance of the initiative reflects the very positive perceptions held by her staff.

The headteacher of School 4 echoed the opinion of her staff when she commented that more advice was needed in terms of practical guidance for implementing the programme.

**Category: Readiness of the Individual**

**Were they reasonably receptive to adopting the innovation?**

All the headteachers made positive comments that confirmed their earlier unanimous decision to adopt the initiative. They indicated clearly that they were ‘behind this project’ and that it would have their ‘full support.’
All gave a positive response to Question 5: *What personal action do you envisage arising from this in-service?* Again the responses were organised using categories that indicated a statement of commitment to:

1. implement the intervention, but without mentioning a specific strategy
2. implement a specific strategy
3. reflect on/review own practice

All their statements fell into Categories 1 and 2. Unlike the classteachers’ responses, there were no references about reflection or review. It may be that the headteachers had moved thorough their period of reflection and were now focused on taking action. The majority of comments fell into Category 2 and all headteachers mentioned more than two specific strategies. From their responses, the headteachers seemed to fall into two distinct groups. The first comprised participants from Schools 1, 3, 4 and 6 who all mentioned strategies that related to both the practical aspects of implementation, as well as the management of the initiative. They all stated their intention to be involved directly in literacy teaching. The second group of headteachers from Schools 2 and 5 focused only on aspects of the co-ordination and management of the implementation.

General statements that fell into Category 1 were typically associated with offering staff support and promoting whole school involvement in the project.

**Did they possess the requisite knowledge and skills?**

Statements about personal action suggested that all the headteachers had identified management skills which they intended to use in taking forward the implementation. The disposition of four headteachers to take part in classroom teaching gave some indication that these participants felt they had the requisite knowledge and skills to get involved at this level of implementation. This may have been related to the recency of their classroom experience. No data is available to indicate the number of years these participants had been in a management post.

Participants from School 2 and 6 requested more ‘help and ideas for working with parents,’ while comments from the headteacher of School 4 reflected those of her staff when she said that ‘reassurance is gained because a lot of it we do.’ The headteacher from School 3 introduced a
note of caution when she said that, in her opinion, much ‘whole school development’ would be required.

Did they have the time?

None of the headteachers indicated any concerns about the amount of time that would have to be given over to the implementation of the initiative. This mirrors the lack of emphasis given to this theme at the initiation stage by the classteachers.

The responses from the headteachers in Schools 2, 3 and 4 reflected those of their classteachers when they stated that more time should have been allocated for training. They believed that more time was needed both for ‘discussion’ and ‘consideration of the activities.’ The Headteacher from School 5 also felt this, although her staff had not highlighted this issue.

Category: Resources

Had consideration been given to both identifying, and providing for, resources?

All the Headteachers made comments related to resource issues. These included references to: organising and gathering resources; having a closer look at materials already in school; identifying themselves as a ‘teaching resource’; and redeploying learning support teachers to the infant classes. It is, perhaps, surprising that there were no mentions of purchasing specific resources at this stage in the initiation phase.
Discussion

The relevance of the initiative to the individuals taking part has been identified as a critical element for the initiation phase of a new initiative (Fullan, 1991; Day, et al., 1998; Stoll, 1999). Participants’ perceptions of the intervention’s relevance, in terms of its clarity, were very positive. The great majority of staff in the six schools believed that they had a clear understanding of the goals of the initiative. It may be that the focused nature of the intervention, with its clearly defined aim of improving children’s literacy achievement, helped to make the goals accessible and easily understood. The evidence certainly suggested that the clear focus of the intervention had contributed to the sense of participants working towards a common goal. This has been identified as an important factor at the start-up of an initiative (Stoll and Fink, 1996).

However, a different picture emerged in respect of classteachers’ perceptions of their understanding of the means of implementation. Groups of classteachers in four schools expressed some uncertainties about firstly, what the intervention should look like in practice and secondly, exactly what had to be done differently. At the start-up of an initiative these are both elements identified as vital (Louis and Miles, 1990; Fullan, 1991).

This was a proximal approach to intervention that acknowledged the primacy of the classroom and involved changes to curriculum and teaching (Wang et al., 1993; Saunders, 2000). Therefore, it may have been that classteachers recognising the key role they were to play in the daily implementation of the initiative, were more likely than other participants to indicate any uncertainties they had about the content and means of delivery of the initiative. Certainly, none of the headteachers gave any indication that they were unsure. This may indicate that the headteachers, having had the opportunity during Stage Two of the initiation for detailed discussions with the development team, genuinely had a clearer understanding of what was required. On the other hand, it may have been more challenging for them to indicate feelings of uncertainty about the nature of an initiative that was about to be implemented in their schools. Similarly, none of the learning support teachers stated any uncertainties about how to implement the intervention. This may have been a result of the particular expertise in literacy teaching associated with their role.
Alternatively, the lack of comments made by headteachers and learning support teachers that problematised the means of implementation could have been a consequence of, what Fullan (1992b) refers to as, 'false clarity.' This is the phenomenon whereby change is interpreted too simply, or results in certain participants claiming that they were ‘doing it already.’ Responses similar to this were indeed made by participants.

In over half the schools, classteachers made spontaneous comments indicating that they felt the intervention was addressing a perceived need. These positive responses had been anticipated following headteachers’ statements that the decision to implement the intervention arose from a need identified by the staff. Taking account of this context, perhaps it was surprising that the data did not highlight a greater consensus across the six schools. Considering headteachers’ reports about the collaborative nature of the decision to embark on the intervention, the researcher had predicted that more class and learning support teachers would have made spontaneous statements that fell into this category.

There was considerable divergence within and between schools about the utility of the training sessions. All the headteachers believed they were relevant. Some classteachers were highly positive about their relevance, while others felt the opposite. Only one of the learning support teachers thought they were relevant to their needs. The general consensus amongst the learning support group was that ‘nothing new’ came out of them. Considering the specialised nature of the role played by this group in supporting literacy development, it could be argued that this finding was not surprising. They may have been already familiar with many of the approaches, strategies and resources; it is also likely that prior to the intervention they would have had access to courses with a specific literacy focus. This hypothesis raises issues about the role assigned to this group, in terms of whether their expertise was fully exploited during the implementation phase. This is discussed in a later chapter. It is worth pointing out that during the initiation phase only two learning support teachers suggested that they saw themselves playing a key role in the implementation phase.

While there were positive comments from classteachers stating that they valued the theoretical input in the training sessions, as well as reports that they intended to engage in further study of ‘literacy theory’, overall there were more negative or qualified comments about the relevance of
this part of the training. Many mentioned a need to get more information about the ‘practical implications’ and as one put it, ‘never mind the theory’.

Interestingly, initial interpretation of this data seemed to contradict findings from earlier studies that indicate that the most effective approaches to staff development in literacy interventions are those which involve teachers in a study of, not only practical strategies for literacy teaching, but also in an exploration of the theoretical framework underpinning these strategies (see Slavin et al., 1992; Clay, 1985). During the initiation stage there was little evidence that the focus on why certain strategies were recommended had impacted positively on participants’ assessment of the relevance of the intervention. On the contrary, some dismissed the theoretical content as irrelevant. However, fascinatingly, evidence emerged from data sets collected at later points in the study, which showed that as participants worked through the process of implementation many reported a developing interest in, and understanding of, associated learning theories. The wider implications of this finding are explored in a later chapter.

In terms of the utility of the initiative, classteachers from most schools felt that they could benefit personally from their involvement in the project. In half the schools teachers also predicted benefits for children. However, in two schools teachers believed that some children had intractable difficulties with literacy acquisition which were associated with ‘growing up in poverty.’ The finding that some classteachers held these beliefs was not unexpected since a review of the literature indicates that there is general agreement amongst workers in the field that educational disadvantage linked to poverty remains highly resistant to change (Zigler, 1990; Nisbet and Watt, 1994). On the face of it, perhaps the surprising finding was the extent of ‘hopefulness’ indicated by many of the participants during the initiation phase.

The majority of respondents indicated their receptiveness to implementing the intervention. This willingness may have been related to their involvement in the initial development planning process, an approach which is identified as a key strategy for encouraging commitment and ownership of an initiative (Day et al., 1998; MacBeath, 1998).

The need for schools to be at a particular stage of ‘readiness’ for change has been identified (Fullan et al., 1980; Crandall et al, 1986; MacBeath, 1998; Myers and Goldstein, 1998).
However, the data gathered during the initiation stage confirmed findings from other studies which suggest that all schools have different capacities for change and development, and are therefore not at the same stage of 'readiness' (Hopkins and Harris, 1997; Dalin, 1998). Interpretation of the data is complex and throws up many questions about how to make sense of participants’ responses at the start-up of the initiative. The findings from this stage of the intervention gave a strong indication that contextual differences existed both within and between schools in terms of participants’ perceptions of the relevance of the intervention and their readiness for change. These differences seem to corroborate the view that schools are all coming from different starting points (Stoll, 1999).

These findings had implications for the network development model (Kovacs, 1998) adopted in the study, whereby, the cluster of six schools worked together on the initiative. While the cluster approach is identified as a potentially effective method (Hubermann, 1992; Joyce et al., 1999; Stoll, 1999), inherent difficulties with this approach are also highlighted with the discovery of these contextual differences between schools.

As already stated, although there were areas of consensus, the differences within and between schools were noteworthy. Notably, the highly positive responses in all categories from participants in School 1, and to a slightly lesser extent in School 3, were striking. The importance of school context has been highlighted when undertaking school improvements (Dallin, 1998; Mortimore, 1998; Harris, 2000) and from the responses there were indications that within and between the different establishments participants had varied capacities for coping with change and the implementation of the initiative. Findings of different capacities both within, and between schools may support the calls for a differentiated approach to school improvement (Harris, 2000; West, 2000). The argument that approaches need to be matched to the specific context (Mortimore, 1998) or at last modified to fit the needs of particular school (Slavin, 1997) seems valid. However, as Hargreaves and Hopkins (1991) argue, when a collaborative approach is employed, like in this study, as the overall needs of the network that make up the school cluster take priority this necessitates a move away from the more specific need of individual and groups.
Findings from the initiation stage confirm the crucial role played by the headteacher in the process of change (Reynolds and Farrell, 1996; Day et al., 1998; Stoll and Myers, 1998; Gray et al., 1999). They had put in place some of the conditions considered critical to support and sustain an improvement intervention. These included: practical attempts to involve staff in the planning and decision making process; co-ordinating the intervention; and demonstrating a commitment to staff development (Harris and Hopkins, 2000).

The importance of having resources in place at the start-up an initiative is acknowledged (Fullan, 1991; Day, et al., 1998; Stoll and Myers, 1998) with the headteacher playing a key role in the process of ensuring adequate resourcing (Stoll and Fink, 1996). While there was evidence that headteachers had considered the resource needs, importantly, at this point, there was not a clear indication that resources were necessarily in place.

However, there were clear indications that the intervention had the backing and commitment of the headteachers; and there was evidence of the active and participatory leadership approaches that are classed as important for successful school improvement initiatives (Harris, 2000). For example: they set in place the procedures for driving forward the start-up of the intervention; some intended to adopt a teaching role; all pledged to support and promote the initiative; and they took part in the staff development training.

The benefits of involving headteachers in the training associated with an innovation are recognised (McMillan, 1996). In this study, a key finding was that headteacher involvement was crucial in terms of them gaining an understanding of, and sanctioning changes to, curriculum approaches for the teaching of literacy.

At the start-up of this study the headteacher group demonstrated strong ownership of the initiative. They were keen to emphasise that they had collaborated with their management peers, and that without external pressure or funding had actively moved forward with this intervention project. It is worth mentioning the paucity of comments made that in any way problematised the issues related to their role in supporting the process. Headteachers did not predict the challenges that both they and their staff were to face during the implementation phase when they grappled with new ideas and made changes to practice, structures and systems within their schools.
CHAPTER 5

THE IMPLEMENTATION PHASE

CLASSTEACHERS’ AND LEARNING SUPPORT TEACHERS’ PERCEPTIONS OF THE IMPACT OF THE INTERVENTION

This chapter examines the perceptions of classteachers and learning support teachers. It begins by setting out the methodology adopted. The data gathered from classteachers is then presented and that is followed by a summary of the findings from the interview with the learning support teachers. Finally, both sets of findings are analysed.

**Classteachers’ Interviews**

The interviews were conducted in the third term, at the end of the first school year of the intervention (see timeline of the study: Chapter 2). All Primary 1, 2 and 3 classteachers agreed to take part in the interview process. Twenty-four Primary 1-3 classteachers were interviewed. They were interviewed in their school groups and six separate face-to-face interviews were undertaken. All the interviews took place at the end of the school day and lasted for between 60 and 90 minutes. Oral consent was obtained from each teacher to the interviews being audiotaped. Participants were assured that they would remain anonymous and that any reference to their school would be coded.

The interviews were semi-structured using an interview schedule of open-ended questions (see Appendix 3). They were designed to gather data related to the teachers’ perceptions of the impact of the intervention on:

- the school
- the teachers
- the children
- classroom practice

No classteacher group of a similar composition, and with similar experiences was available to use as a pilot group; instead, colleagues working in the field of intervention were consulted on the appropriateness of the proposed interview schedule. There was agreement that the content
and design offered the potential for exploration of the issues under scrutiny. The aim was to undertake in-depth interviews which, it is claimed, are particularly suited to an investigation of the experiences of change that participants have identified as a result of their involvement in an initiative (Patton, 1990).

The semi-structured interview schedule provided a framework. It allowed for a flexible approach within which interviewees were able to discuss issues that were not pre-planned (Denzin, 1970; Silverman, 1993) while ensuring that the areas under investigation were covered.

The combination of researcher/developer role in this study meant that bias was a key issue to address. The steps taken to lessen the possibility of this are fully discussed in Chapter 2. During the interviews the researcher adopted the role of a seeker of information, and a facilitator, who prompted respondents to reflect on their experiences. Underpinning this role were certain key aims. These were to:

- strive for ‘consistency of approach’ across the interviews (Schutt, 2001)
- achieve clarity in the questions by making use of commonly used terms as opposed to jargon (Patton, 1980)
- clarify and probe the respondents’ interpretations of the questions asked (Schutt, 2001; Hitchcock and Hughes, 1995)
- verify interpretation of the responses and to make attempts to clarify their statements by asking participants to expand further (Kvale, 1996)
- gather the interviewees’ perceptions in their own words
- ‘encourage and utilise group interactions’ (Wilson, 1997:211).

Certain components of the interview method used were similar to those identified by Wilson (1997:211) as the key elements of the focus group approach. For example, the teachers met in small groups, in a non-threatening environment and had the chance to explore their ‘perceptions, attitudes, feelings [and] ideas.’ Moreover, the critical role that Wilson states is played by group interaction was integral to the interview process in this part of the study.

The group, rather than the individual, interview is viewed as a more authentic experience in that it ‘can sometimes move closer to a social situation’ (Bechhofer and Paterson, 2000:67). It is
claimed that this social interaction between the group members has the potential to yield the best information and range of responses (Watts and Ebbut, 1987; Cresswell, 1998; Cohen et al., 2000).

In almost all cases, interviewees from individual schools demonstrated a united front in their perceptions of the impact of the project. Because of the consensus that appeared to be present within each school, it seemed valid to analyse the data, at one level, in terms of the similarities and differences amongst the schools. In the few cases where there were marked differences between the viewpoints of individual members of the same school staff these differences of opinion have been highlighted. While it is claimed that consensus views are a product of group interview (Powney and Watts, 1987), the finding that dissension emerged was encouraging and suggested that consensus was not necessarily an artefact of the method nor, was it associated with the particular role played by the researcher/developer in the study.

Transcripts of the interviews were produced and coded by the researcher. A colleague working in the field of early intervention verified the coding. The data were organised into major categories and within each of these the data were sorted into related sub-categories which were again verified.

The preliminary analysis of the data included a focus on the identification of patterns, and expected and unexpected themes that emerged. The focus is on content analysis: an analysis of 'what' people said. However, when appropriate, also discussed is the way in which they said it - 'how' they talked, as well as the group interaction.

Themes that were common across the schools were highlighted, as well as those that only emerged in a single school or a few schools. Connections between themes and categories were identified and relationships with other data sets were noted. Triangulation of data helped to reduce the risk of the limitations of the method. Finally the data were interpreted in terms of the related literature.
Learning Support Teachers' Interviews

The interviews were conducted in the third term, at the end of the first school year of the intervention project (see timeline of the study in Chapter 2). All six learning support teachers agreed to be interviewed. They were interviewed as a group. The interview lasted for 75 minutes.

The same methodology and procedure were used for the learning support group interview as was employed in the classteacher interviews. A summary of the key findings from the interview with the learning support teachers is presented after the section that deals with the classteachers.

Main Categories Emerging from the Classteacher Interviews

Five main categories emerged from the data. These, together with their related sub-categories are reported in the rest of this chapter. In a few instances there was some overlap in the categories. However, they are presented in this way so as to offer a more holistic impression of participants' perceptions.

The five main categories are:
- Change in Practice
- Impact on Children
- Impact on Staff
- Staff Development
- Barriers to Implementation

1. Change in Practice

The difficulties associated with achieving different dimensions of change, particularly in terms of approaches to teaching practice and beliefs is well documented (Fullan, 1992; Richardson, 1994). However, in the next part of this chapter evidence from the data affirm that changes occurred. Changes to practice at the levels of systems and structures were also identified. Some changes were planned for, while others were unexpected and emerged as the dynamic of the intervention got underway.
2. Impact on Children

It is argued that it is important to focus on the impact of an intervention initiative at the child-level (Stoll and Fink, 1996; Harris, 2000). In the main, literacy interventions do include measures of their impact on attainment outcomes. However, the literature reviewed reveals a paucity of interventions that have sought to explore the broader impact on children. The data gathered under this category was, therefore, significant in that as well as offering insights about how teachers viewed the impact of the intervention on children’s literacy achievement, it also detailed their perceptions about children’s expectations, motivation and disposition to becoming readers and writers. Indeed, the striking nature of the claims made by some of the teachers resulted in a decision to extend the study in a limited way to explore children’s own perceptions of the literacy process and their experiences during the intervention (See Chapter 8).

3. Impact on Staff

Changes at teacher-level, in terms of their actions and beliefs, have been found to be important during the implementation of an intervention (Fullan, 1992b). The data that fell into this category also pointed to the highly complex nature of change. It demonstrated ‘the human side’ (Evans 1996) of the process and revealed the importance of recognising participants’ emotional responses to their involvement: a theme that receives few references in the literature reviewed.

4. Staff Development

Staff development is identified as a key component in the change process, playing a significant role in supporting teachers in implementing new approaches to classroom practice (Joyce and Showers, 1980; Fullan, 1992b; Brighouse and Woods, 1999). A range of data was classified under this category. This included data that supported the evidence gained from the literature about the power of diary writing as a professional development tool (Holly, 1989; McKernan, 1996).

5. Barriers to Implementation

The process of school improvement has been described as one of ‘opening doors’ (Joyce, 1991). However, in this study there was also a range of data about participants’ perceptions of the ‘barriers’ they had encountered. These included issues already identified in the literature as being potentially problematic, such as lack of opportunity for collaboration (Nias et al., 1989;
Stoll and Fink, 1996) and availability of resources (Fullan, 1991; Day, et al., 1998; Stoll and Myers, 1998). Participants' had strongly held views about the barriers that arose from the 'pressure and overload' they experienced on a daily basis in their work: a theme, not so common in the literature.

A full report of these five categories and their related sub-categories follows in the next part of this chapter.

**Category: Change in Practice**
(see Appendix 4, Tables 1A-E for tables describing this category)

Sub-categories:
- Curriculum Balance
- Classroom Organisation
- Effect of Previous Beliefs
- Explicit Teaching
- Deployment of Staff
- Methodology, Content and Resources
- Parental Involvement

**Curriculum Balance**

A major change reported in all schools was the shift in the balance of the curriculum towards literacy with a significant increase in time spent on this curricular area. This consensus view was succinctly summed up by one classteacher:

> The curricular balance is going out the window. [School 4]

In Schools 2 and 3, staff appeared to be comfortable with the changes, but in Schools 1, 4, 5 and 6 many had strong concerns. Comments included references to feeling 'worried,' 'nervous' and 'panic stricken.' Interestingly, while voicing concerns about curriculum balance these teachers still argued the case for placing the emphasis on literacy teaching.
There was general agreement in all six schools that the extra time spent on literacy had resulted in less time being spent on other areas of the curriculum. Classteachers in all schools, apart from School 2, felt that the intervention had had a particularly negative impact on the amount of time allotted to mathematics. This view was frequently mentioned and strongly emphasised. The following comment is typical:

We are doing literacy, literacy, and literacy and now I think we all feel that maths is suffering a bit. [School 1]

**Classroom Organisation**

Teachers from all the schools cited notably similar changes in their classroom organisation. In four schools classteachers reported that most literacy teaching was now taking place in the morning because this was the ‘optimum time for the children to learn.’ In all schools, interviewees reported the move towards a ‘more structured approach’ to the organisation of the day. The introduction of blocks of language activities was recognised as being particularly significant. Classteachers explained that in the past, activities were organised so that at any one time different groups of children would be involved in working on different areas of the curriculum. Now, when literacy was the focus, all the children would be involved in working on that curricular area at the same time. The reports of how this operated in practice were very similar: the teacher worked with a group while other groups worked independently or with another adult. This change in practice received favourable comment from teachers in all schools. Some felt that they were ‘getting more done’ and it helped them to ‘keep tabs’ on what they were teaching, while others thought it had led to an increase in children’s concentration.

These organisational changes appear to have evolved naturally and had not been specifically recommended as part of the intervention. Interestingly, as is evident from the following comment, these changes did not necessarily fit with teachers’ previous beliefs.

There is a real feeling of concentration. You are not trying to do some reading with a group and having to stop and say, ‘Oh Susan, stop throwing sand over Jordan.’ You know, everyone is concentrating on the same thing. They are all doing some kind of literacy work, and that goes completely against what I would have believed in two years ago. [School 1]
The shift to working with a range of other personnel was highlighted in five of the schools as a cause of some of the changes to organisation. Teachers described how the move away from being, in many cases, solely responsible for the teaching of their class had necessitated a review of their organisation.

**Effect of Previous Beliefs**

Teachers in all six schools commented that some of the recommendations were ‘in line’ with their personal view of what constituted effective literacy teaching. Interestingly, although many recommendations seemed to fit with teachers’ previously held beliefs, the introduction of these approaches resulted, in some cases, in major changes of practice within their schools. This was particularly highlighted in terms of the change in methodology for teaching writing. This was the most frequently mentioned change in practice. Common practice before the intervention had centred on infant teachers scribing for children. The project recommendation (see Chapter 3) to also encourage independent writing and copying from the earliest stages was favourably received by most teachers. The views of participants are well represented by the following comments.

I always felt that the children were not being asked to write early enough, and you know, I thought it was actually unfair not to let them write. [School 6]

In the past you had to stop them copying things and they naturally wanted to do that. [School 2]

Strategies such as teaching the common words, and the sounds and names of letters of the alphabet, were frequently mentioned in all schools. Much use was made of phrases like ‘it makes sense’ and ‘these things are just common sense basically.’

Interviewees expressed satisfaction with the deployment of learning support teachers at the Primary One stage. They highlighted the ‘sound logic behind this approach’, and indicated that they would have always welcomed this way of working. Involvement of learning support in the first year of schooling clearly fitted with their previous beliefs about what constituted an effective approach to early intervention. As one said:

Now learning support is starting in Primary one. That was something that for years I could never understand. I used to think, ‘Why don’t they capture them early?’ [School 5]
In Schools 1 and 3 certain teachers stated that some of their previously held beliefs had been challenged and changed by their involvement in the intervention project. For example, in terms of their expectations of what Primary One children could achieve in literacy: they claimed that their expectations were now at a much higher level.

**Explicit teaching**

The theme of ‘explicit teaching’ emerged in three of the schools. No references to this were made in the other schools. In Schools 1, 3 and 6 almost all teachers spontaneously discussed their use of a more ‘explicit teaching approach.’ They described the ways in which they were trying to ‘make it much clearer’ to children why they were being taught certain strategies and skills, and how they had explained to children that ‘learning these things’ would help them to become readers and writers. These teachers reported that they were emphasising the utility and the importance of strategies. They spoke confidently, and at length, about their reasons for adopting this approach. The following extract gives a flavour of this:

> There is much more explicit teaching going on. We are giving the children more explanation, and more information that they can hold on to, and that really helps them to understand. Then you take it further: almost justifying it to the children. Explaining why they should learn that. Why you are teaching certain things. Why these things are important. [School 1]

Teachers in these schools also reported that they had been encouraging children to talk about the strategies they were using during literacy activities; and encouraging them to articulate their reasons for selecting certain strategies. Varying degrees of success were reported, however, they felt that it was potentially a highly effective approach. This focus on developing children’s metacognition in relation to literacy had only been touched on very briefly during the staff training. It was mentioned in the context of promoting knowledge of the technical language of literacy so that children would have access to the vocabulary needed to discuss their literacy learning. These teachers had clearly built on the project recommendations, as one said:

> I have really tried to get the children to talk more about what they are learning, and why they think it is important. And I get them to explain it to each other. I notice that they are beginning to use the correct words, as well, when they are telling you the different ways they go about, maybe, reading something. [School 3]
Almost all the teachers in Schools 1, 3 and 6 offered examples of their 'explicit teaching.' The most frequently mentioned strategy was modelling literacy behaviour. One teacher described how an everyday occurrence in the class could be used:

It may sound pretty basic, but now I never write a classroom notice unless the children are there watching me doing it, and that's something I never used to do. [School 3]

In another school, a teacher talked about the importance of giving children explicit feedback about their progress. She described at length the various strategies she had used. The following example focuses on a discussion around children's progress:

I said, 'Let's look back at the first story you wrote.' And we went through the book and we were all amazed. We talked about how they had come on and the children were just delighted; they could see the progress they had made and they wanted to talk about it. We were all really quite excited about it. [School 6]

**Deployment of Staff**

It is important to reiterate that any increase in personnel was a result of headteachers re-deploying existing staff; using the existing school budget to employ temporary staff; or encouraging the involvement of volunteers and community groups.

In all the schools there were reports of an increase in the number of personnel working in classrooms. The range of people cited as providing extra help and support in developing children's literacy skills included: learning support teachers, nursery nurses, auxiliaries, promoted members of staff, homelink teachers, volunteer tutors, community workers, older pupils and parents. All the interviewees mentioned that they were working with at least three or more of these and indicated that the extent of this additional help in their classrooms was a new development.

The introduction, or increase in learning support provision was the most frequently mentioned change. Learning support teachers were now working in all the schools at Primary Two and in most schools at Primary One. Teachers unanimously welcomed this change and expressed confidence that this was an effective strategy in raising the literacy attainment in their classes. However, the increase in the number of people working in classrooms was not without difficulties. The theme of adjusting to other people 'coming into your room,' emerged in Schools
4, 5 and 6 and teachers discussed their concerns. These included: maintaining a consistency of approach in the management of pupil behaviour; dealing with conflicting teaching styles; and coping with the ‘rather daunting’ challenge of ‘working in front of a lot of adults.’

In Schools 2, 4 and 6, teachers identified ‘management issues’ and they reported that at the outset they had found basic organisation to be problematic. Nevertheless, in spite of a range of initial difficulties most of the teachers were very positive. As one said:

Once you get over the hurdle it’s amazing how used to each other you get. Because it’s going on every day you are becoming a bit more confident about speaking in front of a lot of people and people watching you. [School 6]

In two schools the ‘extra help’ was considered to be one of the most successful elements of the intervention project. However, in these same schools and in one other, there was still some uncertainty about people who ‘were not teachers’ being involved in teaching reading.

Methodology, Content and Resources.

Teachers in all six schools stated that they had adopted elements of the project’s recommendations and had made some changes to the methodology, content, and resources used in their literacy teaching. Teachers in Schools 1, 2, 3 and 6, cited evidence to support their claims. One, referring to a colleague said:

She has just come back from maternity leave and she has been asking about all the different things that are happening. She sees that we’re doing things differently. [School 1]

In another school a teacher offered evidence from staffroom discussions:

When you listen to each other, there is this thing coming through that our practice is changing in small ways. [School 3]

In all schools, teachers reported that they had increased the frequency and the amount of the time spent hearing children read. However, there were some cautionary points made by teachers in Schools 1, 3, 4 and 5 about this development. Although they had increased the frequency and time, they expressed some concerns that this might have impacted negatively on the quality of
their teaching input. Particularly, some felt, in terms of the ‘on-going assessment’ that was ‘vital’ at the early stages.

Teachers in all the schools agreed that there had been a move away from the previous approach to teaching writing which had focused heavily on scribing for children. The majority claimed that from the start of schooling, as well as scribing, they were now encouraging children’s independent attempts at writing, and giving them access to words to copy. In schools 1, 3, 5, and 6 teachers offered evidence to support these claims. Some cited examples of independent writing in children’s assessment folders. They reported that the majority of samples of writing, at the Primary One stage pre-intervention, comprised teachers’ scribing with hardly any examples of children’s independent writing. One teacher compared the approach to teaching writing being used in a colleague’s Primary One class with her own experience of teaching the same stage the previous year:

Walking into your Primary One classroom now and looking at the writing on the walls, compared to walking round my class last year... you can see it’s totally different. [School 1]

Teachers in all schools maintained that they had changed their practice with regard to teaching letter sounds. They claimed that they were now systematically teaching letter–sound correspondence and the alphabetic system from the earliest stages and at a much faster pace than before. This was one of the most frequently mentioned changes to practice. In Schools 1, 2, 3 and 6 teaching the names of the letters as well as the sounds was common practice. Teachers thought this was ‘worthwhile’ and that children were coping with this information. In these schools, teachers all described their efforts to teach the Common Word list; they gave examples of resources they had made, and approaches they had used to support this. Teachers in all the schools mentioned promoting awareness of rhyme. There was a sense that although this was something that had always gone on there was now ‘more of a concentrated effort’ to develop children’s awareness of rhyme in words.

It is interesting to note that terms such as ‘phonological awareness’, ‘analogy’, ‘onset and rime’, and ‘concepts about print’, which had been used frequently during the training sessions were never used by the teachers during the interviews. However, it was clear from the descriptions of the type of literacy activities that they described that these areas were being taught; teachers used
more familiar language to describe them. For example, some described using plastic letters to teach children ‘to move around sounds in words’. Others spoke about building up ‘rhyme families’ or ‘word families’, and other interviewees described ‘explicitly teaching the meaning of words like page, sentence, letter and full-stop.’

The majority of new resources cited were from the project’s recommended list. The most frequently mentioned were plastic letters, alphabet mats and literacy games. Teachers in all the schools stated that they had been supplied with some new resources. However, the amount of materials ranged from ‘very few’ in one school to ‘a huge amount’ in another. In School 3 teachers described how they had provided a lot of their own resources by making or buying materials and bringing in ‘stuff from home.’

Parental Involvement

Interviewees in all schools referred to approaches they had initiated to encourage parental involvement. Most frequently mentioned were, encouraging parents to assist with classroom literacy activities and setting up literacy workshops. In Schools 1 and 2 a range of strategies were listed that included, making a literacy handbook for parents and a video that documented ‘a day in the life’ of children in Primary 1. In Schools 1 and 3, classteachers reported that they had talked with parents about some of the intervention’s recommendations. They also emphasised that they were trying to be ‘more explicit’ in the type of advice they gave.

However, teachers in all the schools described the difficulties associated with sustaining these initiatives. None of the teachers believed that there had been a marked increase in parental involvement, however there were reports of the project having impacted in other ways. In Schools 1, 3 and 6 teachers said they had received positive feedback. Often this came from parents who positively compared the progress younger children were making, with the progress older siblings had made at the same stage. Staff also described getting positive feedback about children’s literacy development in the form of ‘stories from home.’

In School 1, interviewees took part in an animated discussion about the impact of the project on parental involvement. They suggested theories and offered evidence to explain some of the small changes that they perceived had taken place. An interesting theory, also touched on during the
interviews in School 3, was that parents ‘understood the reasoning’ underpinning what these teachers referred to as ‘the straight forward’ project recommendations. In School 1 participants believed that they had tried to ‘remove the mystique’ associated with teaching children to read and that consequently there was now the potential to establish a more equal partnership with parents in this endeavour. They indicated that they viewed this development, to some extent, in terms of teachers ‘letting go of power.’ Summing up this viewpoint, one teacher said:

It’s very much more open. It’s not this precious thing that we keep to ourselves; and there is this hidden agenda; and it is our task to teach them to read; and we will give you [parents] as much as we think you can take. It is a lot more open. [School 1]

Category: Impact on Children
(see Appendix 4 for Tables 2A and 2B describing this category)

Sub-category
- Motivation and Active Involvement
- Progress and Achievement
- Reading, Writing and Awareness of Print
- Awareness Of Strategies/ Disposition To Use Strategies

Motivation and Active Involvement
Teachers, in Schools 1, 3, 5 and 6 believed that the intervention project had impacted positively on children’s motivation and active involvement in literacy learning. In Schools 1, 3 and 6, this was emphasised very strongly and when describing the children’s attitude interviewees used phrases like, ‘very enthusiastic,’ ‘really responsive,’ and ‘showing lots of interest’. However, in Schools 2 and 4, teachers felt that there was little evidence to demonstrate increased motivation amongst the children.

In Schools 1, 3 and 6, staff offered a range of evidence to support their claims that children’s motivation had significantly increased. Interestingly, the teachers’ choice of words appeared to convey their own sense of enthusiasm and involvement. The following comments illustrate this:
We are getting really positive feedback from children. They are bringing their reading books to me and saying, 'Can I read to you. Please can I read to you.' It's just wonderful. [School 3]

Learning the alphabet and playing with the sounds in words - they love it. They absolutely love it. You can't move without somebody saying, 'Oh! that's a 'd' for dog', or 'elephant starts with 'e'' or ‘that's what my name starts with'. [School 1]

Teachers in these three schools also discussed children’s self-initiated involvement in literacy activities, and there was a strong feeling that this had increased in comparison with previous years. They gave examples of children embedding reading and writing in their play, and using literacy for appropriate purposes. For example, a teacher described how a group of children had been ‘playing at schools’ and had started to make class registers. Eventually eleven children were involved, copying names then reading them out to each other. Teachers also described how they had set up a range of contexts with the specific aim of promoting literacy play. They believed that this had encouraged children’s active involvement and they reported that these areas were very popular.

In schools 1, 3 and 6, teachers cited parents’ comments as further evidence for their claims that children were motivated and actively involved in the process of becoming literate. They believed that ‘things had been happening at home, leading on from what was happening at school.’ For example, some parents had reported that children had asked for alphabet books as Christmas presents and others mentioned the amount of ‘pretend writing’ children were doing at home.

In one of these schools, the teachers pointed out that parents seemed well informed about the literacy activities going on in the classroom, as well as knowing some of the strategies that the children were learning. According to the teachers, this was especially noteworthy because these observations had been made prior to any information being issued to parents. The teachers believed that the children must have told their parents about what was happening in school. One participant stated:

It was so noticeable and I have written it all down in my diary. Parents were talking about things that they could not have possibly known were going on in the classroom unless children had spoken about it, because we had not told them what was happening in that detail. [School 3]

114
Interviewees, from Schools 1, 3 and 6, spontaneously offered their own theories relating to children’s disposition to becoming readers and writers. In two of these schools, they argued that learning to be literate was a ‘very natural’ instinct for children. In another, there was a discussion about children’s expectations of school: there was a consensus that children had high expectations of learning to read and write when they came to school. The teachers expressed satisfaction that the new ‘focus and pace’ of teaching was helping to satisfy the children’s expectations. One of the teachers articulated very clearly what many of her colleagues felt:

If you ask children, “Why do you want to come to school?” most would say, “I want to learn to read and write.” Before, it was so long before they saw themselves achieving this that some of them had given up. Now they are straight in to it. [School 1]

Progress and Attainment
Teachers’ views varied in terms of whether the intervention had impacted on children’s levels of progress and attainment in literacy. In Schools 2, 4 and 5 they felt that there was very little evidence to indicate a significant, positive impact. They felt that any slight improvements in literacy attainment were not necessarily due to the intervention. They argued that every year there were ‘always children who are further ahead’ and this made it difficult to accurately assess the impact of the project.

In Schools 1, 3 and 6, teachers expressed some confidence that the project was having a positive impact on progress and attainment. However, there were conflicting opinions as to which group of children were benefiting most, and some doubts as to whether it was ‘perhaps too early to say’. In School 6 they believed that all children were benefiting, and in School 3 it was ‘the less able.’ While, in the School 1 (one of the highest FME in the study), teachers thought the two top groups ‘were getting most from it.’ Interestingly, in this school there was concern about what was identified as ‘a widening gap’ emerging between the ‘more able’ children and the ‘bottom’ groups in their levels of literacy attainment.

In Schools 1, 3 and 6 teachers offered a range of evidence to substantiate their claims of any increased attainment: they spoke about children’s increased alphabetic knowledge and their ‘astonishing progress’ in writing and their ability to read common words.
Reading, Writing and Awareness of Print

Children’s awareness of print was said to have increased in all the schools, although the reports of the scope of this development differed. In four schools, teachers reported that there had been a ‘considerable increase’ in children’s print awareness, while in the other two schools, teachers described only ‘some’ increase.

Most frequently reported were children: ‘pointing out’ words or letters; talking more about letters, word and sounds; and demonstrating an increased knowledge of letter/sound connections. Teachers in all the schools made reference to the children’s increased awareness of rhyme. There was consensus that the focus on teaching rhyme had increased. Teachers spoke positively about this development and felt this was a useful strategy to support awareness of the sounds in words. Teachers in all the schools referred to the list of Common Words. However, in many of the schools teachers pointed out that ‘the bottom group’ were having great difficulty in learning more than a few of these words. Generally, they felt that it was the more able children who were making greatest progress with this.

It is noteworthy that although many made general statements about their perceptions of children’s achievement in literacy, only two teachers commented specifically about children’s reading achievement. These teachers were from Schools 1 and 3 and they were both teaching at the Primary One stage. They were the only teachers to state explicitly that they believed the intervention was impacting positively on children’s attainment and progress in learning to read.

However, the impact on children’s writing was perceived very favourably in all the schools and in the majority, participants believed that the emphasis on encouraging children to write independently from the earliest stages had impacted positively on children’s confidence when they approached the task.

Children’s Awareness Of Strategies/Disposition To Use Strategies

This powerful theme only emerged in Schools 1, 3 and 6. In these schools teachers believed that children were demonstrating an awareness, and disposition to use, the skills and strategies that had been taught as part of the intervention. These observations were frequently linked to
comments about the children demonstrating an increased confidence and willingness to ‘have a go’ at literacy activities. The following comments give a flavour of these beliefs:

They are much more confident, within themselves, of their own capabilities, so they are quite happy to go and try it out. [School 3]

I don’t think that there is any doubt that what we are doing is empowering the children. They are making use of what they have learnt every day. [School 1]

Interviewees from these three schools emphasised that they felt that many of the children knew why they were being taught certain skills and strategies. They argued that the children had started to ‘make the link’ between learning these skills and strategies, and becoming readers and writers. The following quotations illustrated teachers’ perceptions of children’s self-awareness and involvement in the learning process:

One child the day after he had been learning some of the key words found them in a book and said, ‘That’s why we are learning these words. It’s so we can read.’[School 6]

The children seem to be more aware. They see the links between what they are being taught: seeing that letters are part of words and that words are to do with reading. Whereas, before, you often wondered if they knew why they were learning them. [School 3]

Teachers offered evidence, gathered from conversations and observations, to support their opinions that many of the children were developing a clear sense of the utility of strategies and skills being taught. They suggested that this awareness was a result of: children trying out strategies and finding that they were effective; and seeing teachers modelling them and talking about their importance.

Many highlighted the ‘positive knock-on effects’ that achieving success in using these strategies was having on children’s motivation and their disposition to become readers and writers. As one said:

Success leads to more success, this is the thing. They realise that the things they are being taught, work. They realise that what they are being taught is a key to other things.[School 1]
Category: Impact on Staff
(see Appendix 4 for Table 3 describing this category)

Sub-category
- Restriction and Control
- Participation and Enthusiasm
- Self-esteem/Confidence

Restriction and Control
A very powerful theme emerged of teachers perceiving themselves as members of a profession facing 'restriction and control'. Teachers in all schools mentioned this, however, there were variations in the emphasis given to it in each school. In Schools 1 and 5 teachers took part in sustained discussion around this theme. In another three schools it was discussed, but given less emphasis. In School 6 it was only mentioned briefly.

Apart from in School 6, there was a strong sense of teachers feeling that they were 'at the mercy of outside influences' with regard to what was the 'accepted' methodology, curriculum content and focus for 'that point in time.' The language they used when talking about the teaching of literacy emphasised this perception. Respondents used phrases that included 'given permission', 'not allowed' and 'told to do it.' The range of external sources identified as exerting control over their work was also notable. These sources of power included: school management, parents, the local education authority, staff development trainers, the research community and, what was described as, 'the constraints of the 5-14 curriculum.' Teachers felt as if they were often 'caught in the middle' of a power struggle taking place amongst these different factions. One interviewee talked explicitly about how she saw these external sources of control impacting on the teaching profession:

I feel you are sometimes made to feel that whatever way you do it isn't right. I think teachers are actually very good at finding what is appropriate for individual children. But often, as a group, we are made to feel we are doing the wrong thing, when in actual fact, your gut feeling is that you are doing the right thing, because you are getting the result. We are constantly having to fit in with different ideas. [School 5]

Apart from in School 6, feelings of pressure to follow, what they perceived as 'trends in literacy teaching', were mentioned by many of the teachers. As one said:
I feel that over the years there have been so many different ways that teachers have been told you should do it [teach literacy]. It has been this way or that way. You are just getting settled into one thing and then somebody's changed it all. Something new is thrown at you, and you just have to get on with it you know. [School 3]

The argument that the recommendations for literacy teaching which were central to the intervention project could also be viewed as 'a trend' was articulated by the teachers in Schools 1 and 5. Interestingly, in School 1 there were different opinions amongst the staff, while some viewed the recommendations as another trend, others felt they had resulted in more freedom for teachers, and had contributed to an atmosphere that was 'a lot more open-minded about the variety of approaches that were possible.' However, while some believed that the intervention's recommendations had released them from some of the previous restrictions, statements were still couched in terms of having been 'given permission to alter practice' and the 'legitimising' of these approaches to literacy teaching.

More specifically, teachers cited the 'restrictions' and 'constraints' that they had experienced during their career associated with 'having to use' particular resources. In all six schools, teachers discussed a commercial writing scheme that had been widely used in Scottish schools throughout the previous decade. The following comment is representative of the views of the majority of teachers in the study:

The thing that I'm finding most, now that I've got rid of the restrictions of 'Foundations of Writing' is that my children are just taking off - writing-wise. Whereas before, you know they weren't to copy, they weren't to do this, they weren't to do that. [School 5]

**Participation and Enthusiasm**

All the classteachers claimed to be participating in the project. However, in all schools teachers discussed feelings of anxiety and pressure about the amount of work involved. This will be discussed in a later section.

In Schools 2, 4 and 5 comments suggested varying levels of positive participation and enthusiasm for the initiative. In Schools 1, 3 and 6 teachers repeatedly described their positive feelings about their involvement and were the most unified in their statements of enthusiasm for the initiative.
Interestingly, in Schools 1, 3 and 6 there was, what might be described as, 'a storytelling culture.' When highlighting a point, teachers often enthusiastically recounted anecdotes about children, or incidents which had occurred during the implementation of the project. There was a sense that these 'stories' were already familiar to the other staff members because in all three of the schools participants often urged colleagues to retell an anecdote for the sake of the interviewer:

Tell her the one about what Donna said when you were looking at her writing! [School 3]

In these schools, a few teachers often simultaneously told the same story about an incident from the intervention project: each adding another piece of information; confirming what had already been said; or, sometimes finishing each other’s sentences.

**Self-esteem/Confidence**

The positive impact of the project on participants' self-esteem and confidence was reported in Schools 1, 3 and 6. This was often related to feelings of a developing sense of ownership of the project recommendations. Teachers described 'now having the confidence to adapt some of the strategies' to suit the particular needs of their children, and they stressed that they recognised that they had 'learnt a lot' from initial mistakes. The 'cycle of success' was also given as a reason for increased self-esteem and confidence. Some reported that the 'increased progress' that certain children were making had impacted positively on their professional confidence:

I think everybody has got increased concentration, focus and success in the literacy area, and that has just made us all do more and have more confidence in what we are doing. [School 1]

Interviewees in School 1 went on to develop this argument further, and suggested that the children 'were affected by the confidence' with which teachers were 'delivering the literacy curriculum'.

Participants from School 6 were the only teachers to mention working in the classroom with their headteacher. They described this as having been a positive experience. They felt that the
feedback from their headteacher had given them increased confidence and new insights to their practice.

Category: Staff Development
(see Appendix 4 for Table 4 describing this category)

Sub-category
- Outside Agent
- Strategies Mentioned From Staff Development Sessions
- Diary Writing as an Aid to Reflection and the Implementation of the Project

Outside Agent
In Schools 1 and 3 and 6 teachers offered their perceptions about the role of the staff development team. There was general agreement that these outside agents had helped to initiate many changes to practice. Classteachers used direct quotations from the presentations of the development team to highlight points. As one said:

I always remember X [the presenter] saying, ‘If the letter resources are not there, then they [the children] don’t have the chance to experiment with them.’ [School 3]

In Schools 1 and 3 and 6, teachers indicated that they welcomed the visits made by the outside agents to their schools, viewing these occasions as an opportunity to ask questions, discuss progress, and to show examples of children’s work. In the other three schools there were no references made to the role of the staff development team.

Strategies Mentioned from Staff Development Sessions
In all the schools, interviewees spoke about developing some of the project’s recommendations. They demonstrated a comprehensive knowledge of the programme content, referring to skills and strategies which were mentioned during the training sessions and featured in the teachers’ manual. In Schools 1, 3 and 6, teachers commented about their ‘new found confidence’ in understanding the research findings and theory discussed during the in-service sessions. As one said:
I can see the link, much more, between all the elements that go together to help children learn to read, and I could explain it better to someone else. [School 6]

Many referred to what they perceived to be the lack of this kind of research-based content in their original pre-service courses.

Diary Writing as an Aid to Reflection and the Implementation of the Project

Classteachers from Schools 1, 2, 3 and 6 kept diaries during the implementation of the project. The number of diary writers ranged from four in School 1, to one in School 2. In School 5 some explained that they had wanted to keep a diary, but ‘with the best will in the world it was too difficult, time-wise.’ All those who kept diaries reported that this extra responsibility had been ‘time-consuming.’ However, in Schools 1, 3 and 6 teachers’ positive comments about the usefulness of this undertaking far exceeded any negative comments. They believed that the process of keeping a diary had helped them to monitor the implementation of the project. It is worth noting that nine out of the ten diarists came from these three schools.

Some of the teachers felt that there was little point in writing up the things that they did ‘week in, week out,’ because this led to a lot of repetition. However, a couple of probationary teachers, commented positively on this repetition. One said that it confirmed that she was ‘remembering to do things every week.’ Another viewed the repetition positively because it arose from her attempt ‘to set up a pattern to her week.’

The majority suggested that they had developed some sense of ownership of their diaries. Many described how they had changed aspects of the pre-set format to allow extra space to write comments. Only one participant indicated a lack of confidence in her attempts at diary writing and she appeared to have little real ownership of her diary. While expressing her willingness to fill it in, she said that she felt unsure about what the researcher ‘actually wanted to do with it’ and wondered if what she was writing was ‘really helpful.’

Many diarists in Schools 1, 3 and 6 claimed that they felt the process of diary writing had encouraged them to be more reflective. As one said:

It has made me really stop and think about what I’m doing. [School 1]
The nature of these reflections varied. Many teachers explained that they had selected particular 'stories' about their pupils which they then analysed to demonstrate a particular development during the project. The interviewees also described more specific aspects of their teaching that they felt had benefited from keeping a diary. One teacher said:

I find that the comments I write in my diary are just so helpful, because I now see that they are possibly also assessment things to inform my forward plans. [School 3]

Teachers reported that they found it interesting to 'look back at what they had written'. Many said that on re-reading early entries they realised that they had 'now moved on in their thinking.' As one said:

Looking back in my diary I see that I was getting awfully bogged down. Now if I was to do it again I would use different approaches. I think that's important: looking back I would do it differently. [School 6]

The teachers who viewed their diary writing as an aid to reflection ranged from probationary teachers, to practitioners with over twenty-five years experience.

Category: Obstacles to Implementation
(see Appendix 4 for Table 5 describing this category)

Sub-categories
- Pressure/Overload
- Resources
- Lack of Formal Opportunities for Collaboration

Pressure/Overload

In all the schools there were feelings of 'pressure and overload' connected with the amount of work 'expected' to be covered on a daily basis. Prior to the project this had been perceived as a problem and the project recommendations had resulted in more pressure 'bearing down'. Teachers in all the schools spoke about 'an already overloaded curriculum,' and highlighted the problems they faced in managing their teaching. The following comments powerfully illustrate this perception:
Some days we're just knocked silly. [School 1]

At times I feel really swamped. I'm pushing myself hard to move onwards, but we are always trying to do so much. [School 6]

Teachers were unanimous in their view that the recommendation that 'children should be heard reading every day' had added to their workload and was almost impossible to implement because of time constraints.

This feeling of being under pressure was strongly emphasised and frequently mentioned by teachers in all six schools. The 'pressure' was variously described as coming from parents, the intervention project and 'the demands' of the 5-14 curriculum. Less explicit references were also made to pressures coming from 'other places', and 'above.' One teacher reported feeling 'under terrible pressure from the children.' Talking about the children's demands in a very positive and humorous way, she described how it was 'exhausting keeping up with their enthusiasm for independent writing.'

Resources

In Schools 2 and 3, teachers commented on the lack of new resources to facilitate the implementation of the project. However, it is important to note that although they saw the resource issue as being 'disappointing' and 'not as they would have wanted,' they did not dwell on this subject, nor use it as a reason for not being able to participate fully in the project. The remark, by one interviewees, about the need to 'just muck in and get on with it' succinctly summed up the feeling in these schools.

Lack of Formal Opportunities for Collaboration

The lack of formally organised opportunities for collaboration was identified in School 1 as having obstructed the implementation of the project. Staff perceived a marked distinction between the importance of the informal day-to day collaboration, instigated by themselves, and the type of programmed opportunities for collaboration that they felt were lacking. They viewed the latter type of collaboration as an essential element for taking the project forward.

I mean we discuss things between ourselves, but it doesn't get any further. [School 1]
As already described in a previous section, there was evidence of high levels of informal collaboration in this school. Staff all agreed with the statement made by one of their group who said:

I think we learn from each other, we work very closely. [School 1]

Although, in Schools 2, 4 and 5, there were no references made to the availability of formal opportunities to promote collaboration, neither was there any evidence of interviewees indicating that they believed that this was necessary. In School 3 and 6 teachers did discuss formal opportunities for collaboration which included joint planning sessions and meetings. The positive benefits of involvement in these activities were identified and seen as useful in supporting the implementation of the initiative.

**Learning Support Teachers’ Interviews**

*Category: Change in Practice*

*Sub-category*
- Curriculum Balance
- Methodology, Content and Resources
- Deployment of Staff
- Parental Involvement

**Curriculum Balance**

The Learning Support teachers reported that they had observed a significant increase in the amount of time spent on literacy activities in classrooms. In contrast to their classteacher colleagues they voiced no concerns about this change to the balance of the curriculum.

**Methodology, Content and Resources**

No changes to the methodology or content of their practice were reported. They stated that the recommendations for literacy teaching were not new to them. However, they all agreed that they had observed changes to the literacy instruction undertaken by classteachers.
Deployment of Staff

Statements that their work was now more focused at the early stages concurred with classteachers' reports. However, almost all expressed concerns that older year groups had 'suffered' as a result of this change. While praising auxiliaries and classroom assistants for their work with older children, there were concerns that this might be viewed as a permanent alternative to specialised learning support provision. They discussed plans for the following year that were designed to support the needs of Primary 4-7 children. The learning support teachers seemed to have an overview of the needs of the children in their schools. This outlook contrasted with the more focused viewpoint of the classteachers whose prime concern was for the children in their own classes.

Parental Involvement

While a few successes were identified, they stressed that the lack of parental involvement was an 'ongoing problem'. Some believed that even with support many of the parents were unsure about what was expected of them in terms of helping their children.

Category: Impact on Staff

Sub-category

- Collaboration
- Restriction and control
- Participation and Enthusiasm

Collaboration

The majority offered examples of collaboration amongst staff. One believed that the literacy focus had intensified collaboration, and that discussion between herself and classteachers had increased. Another claimed that she felt 'less isolated' and that she 'suspected' that classteachers might also feel this way because, as she put it, 'we are sort of fighting a common cause.'

Restriction and control

Facing 'restriction and control' was a theme that emerged. Although this was given less emphasis, learning support teachers supported the classteachers' views that there were external sources of power influencing classroom teaching. For example, in reporting that classteachers
had adopted many of the recommendations, one argued that this had happened because the classteachers had ‘been given the green light to do it’.

**Participation and Enthusiasm**

All the interviewees referred to their participation in the project; particularly about their increased focus with the infant classes. In terms of their enthusiasm for the initiative, there were far fewer positive comments made by learning support than by classteachers. However, there was clear evidence to show that they were in agreement with the need for the initiative and in accordance with many of the strategies used. The reticence in enthusiasm might be explained by comments which suggested that many of them had been aware of the need for intervention and had been trying to implement intervention strategies in classrooms prior to the start of the project, but had not had ‘the backing’ for full implementation. As one said, it took an outside agency ‘to convince the cluster in general that a basic literacy programme would be worthwhile’.

Comments such as: ‘there is now recognition of what we do, and that we have been doing it right all along,’ explained how they felt. There was a clear sense of frustration that their efforts before the onset of the project had not been successful. They felt this was partly because the strategies they had tried to implement were, at that time, not viewed as being ‘in’ or ‘the flavour of the month.’

**Category: Impact on Children**

**Sub-categories**

- Progress and Attainment
- Reading, Writing and Awareness of Print

**Progress and Attainment**

This group were less convinced of the existence of any identifiable gains. They believed that many of the children’s literacy difficulties stemmed from poor communication skills. They concluded that because of this many were not ready to read and write because they could not ‘structure language orally.’ They argued strongly that there should be a greater focus on developing communication skills.
Reading, Writing and Awareness of Print
The interviewees all agreed that children were being encouraged to write from the start. There was general consensus that children had a greater awareness of print and that there was a significant increase in alphabetic knowledge and sound awareness. Nevertheless, they were not all convinced that this had made a significant difference to children’s progress in reading.

Category: Staff Development
All demonstrated a clear knowledge of the intervention’s recommendations. However, they stressed that none of the strategies or the theories that underpinned the project was ‘new’ to them. They emphasised that prior to the project they were already using the majority of these approaches with the children who received learning support provision.

Category: The Way Forward
Almost all, unprompted, offered their views about the continuation of the project. They believed that, as one put it, ‘we have to make sure it goes on.’ However, they questioned whether this was possible with the same level of funding. They agreed with one participant who argued that ‘more money would have to be pumped in.’ Their recommendations for the future included: increased learning support provision; equity of allocation at all stages of the school; smaller classes; and more resources.

Category: Obstacles to Implementation
They echoed classteachers claims of experiencing pressure and overload. There was a consensus that their time was ‘very stretched.’ and they agreed that in general there was ‘just to much to try to get through’ in term of curriculum content.

Category: The role of the headteacher
Interviewees identified the key role played by the headteacher in sanctioning changes to their practice and that of the classteachers. This theme had not been mentioned by classteachers. All stressed that for practice to change ‘it has to come from the Heads.’ The consensus was that without management commitment to the intervention ‘there could be no difference made to what happens in classrooms.’ They stressed the importance of headteachers ‘knowing about’ and ‘understanding’ the various strategies that were part of the intervention. Related to this, they
identified the whole school involvement in the training sessions, as one of the most successful elements of the project. They agreed with one interviewee who said that in the past it had been ‘very seldom’ that headteachers and all staff came together for development sessions.
Discussion

The analysis of the interview data that follows is underpinned by two organising constructs. The first is a framework of multi-level change, and the second is based on the similarities and differences found amongst the study schools. The latter is embedded throughout the discussion.

Multi-level Change

There was strong evidence to suggest that multi-level change had emerged during the implementation phase of the intervention. The importance of change taking place across different dimensions has been identified in terms of the resulting impact on outcomes and the realisation of the original aims of an initiative (Clay, 1985; Fullan, 1991; Pinnell et al., 1994). According to participants’ reports, multi-level change variously took place in terms of organisational structures and systems; teachers’ practice and beliefs; and children’s behaviours. On certain dimensions these changes occurred concurrently, while in others, changes at one level triggered changes at another. Moreover, some changes were planned for as part of the intervention, while others were unexpected, emerging as the dynamic of the intervention got underway.

Structures and Systems

A range of changes at this level were identified by classteachers and many were affirmed by learning support teachers. A key change was the redeployment of existing staff and the recruitment of volunteers. This increase in personnel then triggered other changes: for example the organisation of the day was changed to accommodate the extra support and collaborative planning was set up. The move towards dedicated literacy time slots was also a major change in the teaching and learning structure. While there were clear similarities between the perceptions of learning support and class teachers about these changes, there were also notable differences. Learning support teachers appeared to have an understanding of ‘the bigger picture’. Their recommendations for the future were not connected with practice; rather they emphasised issues at the level of structure and systems, such as resourcing, staffing and equity of provision. Their responses reflected more of a whole school perspective. Their overview of the needs of children in their schools contrasted with the narrower focus of the classteachers, whose prime concern was for the children in their class.
Teachers’ Practice

The most salient change to practice was the shift in the balance of the curriculum towards literacy. Classteachers viewed this as a ‘striking’ change which had resulted in less time for other curricular areas. Interestingly, ‘sacrifice’ in other areas is identified by Huberman (1992) as a strong indication that significant change is taking place.

In all six schools, classteachers claimed to have adopted a range of the project’s recommendations and, as result of this, had made changes to the methodology, content, and resources used in their literacy teaching. These claims are corroborated by data gathered from learning support teachers. Generally, classteachers believed that the changes to practice had proved to be successful. However, caution must be exercised in the interpretation of this evidence, as it is known that when new methods and resources are introduced they are often found to be more successful than the existing methods because of the optimism and enthusiasm of the innovators (Chall, 1967).

In contrast to classteachers’ reports of changes in practice, the learning support teachers reiterated comments made, at the start-up, stating that there was ‘nothing new’ for them in the project recommendations. However, they believed that because many of the recommendations had been adopted by the classteachers that this was a potentially positive development. A claim supported by the literature that highlights the importance of the consistency between specialist and classroom provision in literacy (Center et al., 1992; Slavin et al., 1996).

Classteachers appeared to have used their professional judgement to ‘fine tune’ approaches to meet the particular needs of their children. Evidence of this was noted particularly in Schools 1, 3 and 6 where teachers had built on the project recommendations. They had initiated further developments and changes to practice, and recognised and acted on opportunities as they arose: all strategies associated with success in improvement initiatives (Louis and Miles, 1990). Specific examples of developments in these three schools included teachers’ claims of: being more explicit in their literacy teaching; ensuring that children understood the utility of strategies; and developing children’s metacognition. These were intriguing findings which, on the face of it, seemed to resonate with the unplanned for changes at child-level identified in a later section of this discussion.
During the interviews in Schools 1, 3 and 6 participants ‘sparked each other off.’ They claimed that they learned from each other, shared ideas and opportunities and indicated that they were willing to examine their practice. These finding were corroborated in their diary entries. It is worth noting that these characteristics are similar to those included by Brighouse and Woods (1999:84) in a list of the qualities of teachers who are ‘energy creators.’ They argue that to produce the level of energy needed to transform pupil achievement, the school needs to have a high proportion of these people.

Arguably, these findings lend support to the conclusion that the different school contexts in the study had varied potential for coping with change, development and implementation: key factors when undertaking school improvements (Dalin, 1998; Mortimore, 1998; Stoll, 1999; Harris, 2000).

**Teachers’ Beliefs**

In terms of changes to teachers’ beliefs, the process was complex: perhaps not surprisingly in the light of what is known about how difficult it is for initiatives to impact at this level (Fullan, 1991). A noteworthy finding was that across the six schools, involvement in the intervention appeared to have prompted a re-examination of literacy practices. For some participants changes made to their practice seemed to then lead to modification or changes to their beliefs. This pattern of events, where changes to levels of teachers’ practice and organisation precedes changes in belief, has been identified in earlier studies (Huberman and Miles, 1984; Fullan, 1992b; Brandt, 1992).

Interestingly, rather than challenging participants’ views, certain recommendations seemed to confirm and fit with teachers’ existing beliefs: the challenge was to policy in the schools. For example, it was a commonly held view that there should ‘always have been’ learning support in the first years of schooling and that children should be encouraged to write for themselves. Teachers are more likely to adopt new practices that are underpinned by notions that match up with their own beliefs (Munby, 1984; Richardson, 1994). Moreover, as in cases like those described above, there was the sense that the intervention process had been one of ‘opening
doors’ (Joyce, 1991) with participants claiming that restrictions had been lifted which allowed for a range of approaches to be used.

Turning now to teachers’ beliefs about the role of theory in their work, the evidence showed that on a number of occasions teachers discussed aspects of their practice in terms of theories of literacy development. This contrasted sharply with findings from the initiation stage when mainly negative and qualified comments were made about having to ‘listen to stuff about theory’, that was felt to be of ‘no real use’ for teachers. The timing of this apparent shift in attitude was important: participants began to explore links between theory and practice after the implementation was well under way, not during the initial stages. They also started to offer theories about children’s literacy development. These included: their disposition to become readers and writers; their development of metacognitive strategies; and their expectations of school. Dalin (1998) argues that ‘theory must be usable’ but, in this study, the findings suggest that the practical utility of the theory only became apparent when participants had experimented with the recommendations, grappled with difficulties, reflected on their experiences and, importantly, had regained professional control of the process. The evaluations of the development sessions which claimed that there had been ‘too much too soon’ seemed valid. The training may have been more effective if it had continued during the implementation stage; and been staged to begin with content and practical application, before leading on to an exploration of the evidence base and theory.

Related to these findings, there was evidence from all the schools that teacher inquiry and reflection had developed at different levels of intensity as the intervention had progressed. Claims that keeping a diary had encouraged a reflective approach were borne out by the analysis of diary data (see Chapter 7). Evidence emerged from diaries that pointed to participants searching for meaning from their experience, and, as they reported during the interviews, demonstrating by their later entries that they had ‘moved on in their thinking.’

However, reflection and inquiry were not necessarily solitary pursuits. Teachers in all the schools discussed their teaching. Teachers engaging in talk about their practices is identified as an important element of effective school improvement (Hopkins and Harris, 1997). It may be that a school climate, in which teachers are motivated to discuss their work, will also be
conducive to teachers learning from each other. Indeed, teachers in this study explicitly stated that this was often the way they 'learnt things'. This theme was particularly evident in Schools 1, 3 and 6 where, not only was there a high level of observed and reported social interaction, and the sense that participants constructed meaning through these exchanges, but talk was also identified as a key strategy that permeated teaching and learning activities. There was an intriguing discovery in Schools 1 and 3 and 6 of 'a story telling culture.' In these schools much use was made of 'stories' often recounted as a group, to illustrate significant events, developments and issues associated with teaching and learning.

The preceding discussion focused on teachers' actions and their beliefs. Clearly, what people think and do is important but so is their emotional response to this. Indeed the mood dimension to teachers' actions (McKernan, 1996) was evident and was further corroborated in the analysis of data gathered from the diaries. In terms of the impact on individual teachers, analysis of the interview data highlighted the need to recognise what Stoll (1999) describes as 'a deep respect for the human dimension of change.' There appears to be a paucity of references to this theme in the literature reviewed.

In the case of learning support teachers they had to grapple with the ethical dilemma surrounding decisions about the allocation of their time. These participants, perhaps more than others, had to face the consequence of these decisions, and the human dimension of change was evident in their reactions to this. They expressed their worries about the older children who had 'suffered.' They also had misgivings about the alternative support offered by classroom assistants because they feared that this might be seen as a viable alternative to specialised provision and arguably as a threat to their role in the schools.

For classteachers, the key concern was the impact of the curricular changes on the children in their class. There were reports of personal satisfaction when they identified a positive impact on progress, and disappointment when they felt that children were not moving forward. This clearly affected teacher's 'mood.' Intriguingly, there appears to be a particular emotional involvement for teachers associated with the process of teaching reading. This phenomenon has been identified by Adams (1990) a leading worker in the field. However, there is little recognition or exploration of this in the literature. It seems that the special emotional involvement of teachers
in this area of children’s learning should be acknowledged and respected, and indeed needs to be recognized and taken account of when planning literacy interventions. This ‘human dimension’ seems to be an integral part of the process of teaching reading that exists alongside professional, systematic approaches to instruction.

Moreover, on this same theme, it is argued that the debates surrounding the most effective approach to teaching literacy have caused particular uncertainty and confusion amongst practitioners (Stanovich and Stanovich, 1995). Certainly, in this study there was a sense of class teachers feeling that they were ‘at the mercy of outside influences’ in terms of what was the accepted approach for literacy teaching ‘at that point in time’.

Teachers perceived themselves as members of a profession facing ‘restriction and control.’ After the start-up of the intervention many experienced a further sense of loss of professional control and experienced, what has been described as the ‘implementation dip’ (Fullan, 1992b). They reported increased levels of uncertainty and stress, a phenomenon, which, it is claimed, is commonly experienced by participants taking part in classroom innovations where there is a significant level of change (Huberman, 1992). Triangulation of these reports emerged from the early diary entries. (See Chapter 7.)

However, as the implementation progressed it seemed that many teachers had dealt with areas of concern and had regained control of what was happening in their classrooms. They reported a lessening of anxiety and this is corroborated in the diary data and from the questionnaires completed at a later point in the study. Working through the implementation of the intervention seemed to have supported their mastery of the necessary skills and increased their professional confidence (Huberman and Miles, 1984).

In terms of the ‘human side’ (Evans, 1996) of involvement in change, it is crucial to highlight the challenges and uncertainties that participants are likely to experience. It seems that not enough attention has been given to developing teachers’ understanding of the process of innovation. All the evidence points to it being a complicated and unsettling business and teachers need to know this at the outset. One suggestion, proposed in recent years, is for teachers involved in improvement initiatives to be supported in also understanding the change process
This would broaden the focus of training in early literacy interventions to include opportunities for teachers to explore strategies and develop systems to help them cope with the complexities they are likely to face. School staff who have explored relevant aspects of the knowledge base on the management of change, and who have developed some understanding about what this means in practical terms for implementation, may have a more realistic view and be in a stronger position to move forward with an intervention.

**Child-level**

While there was consensus that in a few areas the intervention had impacted at child-level, for the most part schools seemed to fall into two distinct groups. Schools 1, 3 and 6 identified a range of positive changes at child level, while the other group of three school felt that there was little evidence of this apart from in the category Reading, Writing and Awareness of print.

In Schools 1, 3 and 6 teachers claimed, firstly, that children were demonstrating an awareness of, and disposition to use, the skills and strategies which had been taught; secondly, that children were making the link between what they were being taught and becoming readers and writers; and finally that they had observed an increase in children’s motivation and self-initiated involvement in literacy learning. These unforeseen developments are investigated in Chapter 8 which explores the perceptions of children attending these three schools.

In Schools 1, 3 and 6 there were examples of how changes at the child and teacher levels seemed to reflect and impact on each other. Teachers reported that children were more enthusiastic and motivated in their literacy learning because they were experiencing a ‘cycle of success.’ Their claims highlight the important interplay between early affective and cognitive outcomes (Entwisle and Hayduck, 1982). Staff maintained that they too had experienced the ‘cycle of success’. Some reported that the positive achievements of children had impacted positively on their own self-esteem and confidence. This, in turn, had given teachers increased faith in using their professional judgement to adapt the recommended strategies to suit the needs of their children. The cycle then continued, because as one participant put it, children were ‘affected by the confidence’ with which the teachers were ‘delivering the literacy curriculum.’
CHAPTER 6

THE IMPLEMENTATION PHASE
HEADTEACHERS' PERCEPTIONS OF THE IMPACT
OF THE INTERVENTION

This chapter focuses on the headteachers' perceptions. Firstly it details the methodology adopted in this part of the investigation. Secondly, data gathered from headteachers are presented. Finally, the findings are analysed in the discussion section at the end of the chapter.

Headteachers' Interviews

The interviews were conducted in the third term, at the end of the first school year of the intervention (see timeline of the study in Chapter 2). All six headteachers agreed to take part in the interviews. Individual, face-to-face interviews that lasted for between 60 and 80 minutes were conducted with each participant in their own school. Oral consent was obtained from each headteacher to the interviews being audio-taped and participants were assured that any reference to their comments would be coded.

The interviews were semi-structured using an interview schedule of open-ended questions (see Appendix 5). They were designed to gather data related to the headteachers' perceptions of the impact of the intervention on:

- the cluster
- the school
- the teachers
- the children
- classroom practice

The combination of researcher/developer role in this study meant that bias was a key issue to address. The steps taken to lessen the possibility of this are fully discussed in Chapter 2. As in the classteacher and learning support teacher interviews, the researcher adopted the role of an information seeker and a facilitator who prompted respondents to reflect on their experiences.
The data are analysed in categories and within these the similarities and difference amongst the headteachers' views are highlighted. The finding that differences emerged during the individual interviews suggested that when consensus was identified this was not necessarily associated with the particular role played by the researcher/developer in the study, nor of headteachers adopting a 'party line' in their perceptions of the impact of the intervention.

Transcripts of the interviews were produced, studied and coded by the researcher. A colleague working in the field of early intervention verified the coding. The data were organised into major categories and, within each of these, the data were sorted into related sub-categories. The preliminary analysis of the data included a focus on the identification of patterns, and expected and unexpected themes that emerged. The focus was on content analysis: an analysis of 'what' people said. However, when appropriate, also discussed is the way in which they said it - 'how' they talked.

Themes that were common across the schools were highlighted, as well as those that only emerged in a single or a few schools. Connections between themes were identified and relationships with other data sets were noted. Triangulation of the interview data with other data sets helped to reduce the risk of the limitations of the method. Finally the data was interpreted in terms of the related literature.

**Main Categories Emerging from the Headteacher Interviews**

Six main categories emerged from the data. These, together with their related sub-categories, are reported in the rest of this chapter. In a few instances there was some overlap in the categories, however, they are presented in this way so as to offer a more holistic impression of participants' perceptions.

The six main categories are:

1. Impact on headteachers
2. Change in Practice
3. Impact on Children
4. Impact on Staff
5. Staff Development
6. Evaluation/The Way Forward
1. Impact on Headteachers

The role played by the headteacher in managing and leading attempts at school improvement is seen as vital (Gray et al., 1999; Day et al., 1998; Stoll and Myers, 1998; Reynolds and Farrell, 1996). Data that fell into this category offered a sense of the successes, as well as the challenges and dilemmas faced by these key players during the implementation of the intervention in their schools.

2. Change in Practice

The importance of change taking place across different dimensions has been identified in terms of the resulting impact on outcomes and the realisation of the aims of an intervention (Fullan, 1991; Clay, 1985; Pinnell et al., 1994). According to headteachers’ reports, multi-level change took place at the level of structures and systems; as well as at the level of teachers’ practice. Some changes were planned for, while others were unexpected, emerging as the dynamic of the intervention got underway.

3. Impact on Children

It is important to explore the impact of an intervention at the child-level (Harris, 2000; Stoll and Fink, 1996). However, studies of literacy interventions tend to focus on attainment outcomes. This study answered calls for broader evaluation of the impact of interventions on children (Evans, 1996). In three schools unexpected findings emerged that mirrored those from the classteachers’ interviews. This resulted in a development of the study to explore children’s perceptions of the literacy process and their experience during the intervention (See Chapter 8).

4. Impact on Staff

The themes emerging from this category offer further insights about the affective impact on teachers’ self esteem, confidence and motivation: areas not so well documented in the literature. Analysis of the data, again pointed to teachers’ emotional response to their involvement in the intervention. Headteachers’ reports of increased professional dialogue amongst staff highlighted the importance of teachers talking about their teaching: a theme identified in the literature reviewed (Fullan 1992b; Hopkins and Harris, 1997; Slavin, 1997).
5. Staff Development

A key component in the change process is staff development aimed at supporting changes to practice (Joyce and Showers, 1980; Brighouse and Woods, 1999). A range of data was classified under this category that showed the wider impact of staff development which, headteachers claimed, had also facilitated changes to systems and structures.

6. Evaluation/The Way Forward

The data that fell into this category was clearly important in light of what is known about the likelihood of innovations ‘fading away’ after the initial wave of enthusiasm (Huberman, 1992; Fullan, 1992b; Reynolds et al., 2000). Headteachers, stating a commitment to implement follow-through approaches and discussing the need for consolidation and development, demonstrated their understanding of the processes involved in implementing the intervention.

A full report of these six categories and their related sub-categories follows in the next part of this chapter.

Category: Impact on Headteachers

See Appendix 6 for Table 1 describing this category.

Sub-categories

- Commitment to the Initiative
- Active Management/Leadership Role
- Collaboration

Commitment to the Initiative

All six headteachers stated explicitly that the intervention project had their backing. They described how the impetus for setting up the cluster initiative to raise literacy standards had arisen from what they and their staff perceived to be ‘the very real needs’ of the children in their schools. The commitment they demonstrated to the initiative seemed to be closely linked to this strong sense of personal purpose. As one said:

I found this initiative very easy to go along with because that was my personal agenda anyway, having discussed with staff, here, what we wanted. These were the very real needs of the school, and so it was easy to work with the cluster on this joint initiative. [H.T.6]
A range of evidence corroborated their claims that the implementation of the intervention had their support. These included: the significant changes made to resource allocation, for example, all said the majority of their budget was spent on the initiative; their sanctioning and support for changes to practice, systems and structures; and the time they claimed to have dedicated to the project.

**Active Leadership and Management Role**

All believed that it was their responsibility to lead the implementation of the intervention. One Headteacher described herself as ‘the main facilitator’, while others argued that they had to ‘get the initiative off the ground.’ Headteachers in Schools 1 and 6 spoke at length about this aspect of their role and believed strongly that it was their ‘job to inspire people’.

Headteachers in Schools 1, 3, 5 and 6 referred to the importance of establishing a common commitment to the aims of the initiative from the beginning and they recommended involvement of teachers at all stages of the planning and implementation.

Interviewees all considered that supporting their staff during the process was vital and that the most effective strategy was to spend time talking to individual teachers or small groups about their ‘successes and concerns.’ They all felt that it was an essential part of their role. This view is summed up by one of the headteachers:

> I mean, you need to be prepared to spend time on it and give your teachers lots and lots and lots of support in terms of encouragement and pats on the back. You have to be enthusiastic and be prepared to commiserate with them when things don’t work. [H.T. 3]

All reported that involvement in the project had ‘used up’ the majority of their management time, however, this was viewed as ‘very worthwhile. As well as discussions with staff, time had been spent in planning meetings, teaching and in resource allocation. Four felt that involvement in the project had resulted in a more focused use of their management time. In particular, they believed that more focused discussions had enhanced communication between themselves and staff. One emphasised that they had ‘a lot more to talk about than before,’ and another thought that she and her staff had a common interest in literacy development and this had stimulated conversation.
Collaboration

All identified the supportive nature of working together as a cluster group in setting up and managing the implementation of the intervention project. The following quotation sums up their perceptions:

I think it has been a great thing for the cluster Heads because it has given us a commonality of approach, and has brought us together as a working group. Although we have worked together well on a lot of other issues, this has really kind of galvanised us all into action. We have all tried to support each other. [H.T.3]

In terms of getting staff endorsement for the implementation of the intervention project, many highlighted the positive impact of working collaboratively as a cluster. As one said:

It actually gave me a bit of strength, in that we were working with other schools, and to the staff this didn't seem to be an initiative that just we were peddling. [H.T.6]

They all spoke at length about a development, during the first year of implementation. This was the initiation of a cluster policy for literacy, aimed at encouraging consistency of approach across the six schools. Each school had set out what they perceived to be the ‘key principles’ underpinning the teaching of literacy. Drawing on the proposals submitted by individual schools, headteachers explained how they had developed the policy document, which they then presented to staff (See Appendix 7, Key Principles Document). All six headteachers talked through this process. They considered that the policy development had been facilitated by the cluster network. Moreover, they felt that involvement in the process had increased collaboration in the cluster. The following quotation illustrates their viewpoint:

Developing the Key Principles for literacy was a really good collaborative piece of work. And, I think it’s a good model for people working with their staff to come up with their school’s own principles and then to share them with other headteachers, and finally, to decide how you are going to take them forward as a group of schools. [H.T.4]

While stressing the collaborative process involved in creating the cluster policy, headteachers from Schools 1, 3, 4 and 6 also emphasised the importance of identifying the particular needs of their individual schools. They believed that there were contextual differences amongst the schools in the cluster. One argued that while she found the policy very useful, she viewed it as ‘a
base’ from which each school would ‘devise their own practice’. Another, hinted at the individuality of each school when she commented that on the surface it would appear that all the ‘schools collaborated beautifully,’ however, she questioned what happened when ‘everyone went back to their own schools’. Those who most strongly emphasised contextual differences were the headteachers of the two schools with the lowest free school meal entitlement in the study. As one said:

Coming up with the Key Principles was great for the cluster, remembering that the schools themselves are so very different. But, at the end of the day, what happens in your school is very significantly school-based according to that school’s needs. [H.T.6]

One felt that writing the policy could have instigated wider, inter-professional collaboration by including some of the community agencies and she highlighted this as a missed opportunity. However she viewed it as ‘a wonderful exercise’ for the headteachers because she felt that they had been involved in ‘real’ professional discussion. She said:

We had to talk education. We had to know education and it brought out everyone’s skills. [H.T.1]

Category: Change in Practice
See Appendix 4 for Tables 2A-C describing this category.

Sub-categories
- Curriculum Balance
- Methodology, Content and Resources
- Classroom organisation
- Quality of Teaching and Learning
- Effect of Previous Beliefs
- Deployment of Staff
- Involvement of Outside Agencies
- Parental involvement

143
Curriculum Balance

The six headteachers all stated that there had been a shift in the balance of the curriculum towards literacy. The consensus was that it had ‘changed quite dramatically.’ Headteachers offered a range of evidence in support of this opinion, including observations from working in classrooms, and their study of teachers’ forward plans. All agreed that less time had been spent on other areas of the curriculum, particularly mathematics and environmental studies. They all stated their approval of this weighting and their feelings were well represented by one Headteacher who argued that:

It’s not feasible to have the same balance of the curriculum in the infants as in the uppers, better to skew it towards literacy in the infants in order that the children can access the rest of the curriculum later. [H.T.2]

Headteachers in Schools 2, 3, 4 and 6 reported the notably less confident position of their classteachers. They stated that initially their staff had voiced major concerns about curriculum balance and that it had been necessary to spend time reassuring them of the long-term benefits.

Methodology, Content and Resources

All reported that aspects of the methodology and content of literacy teaching had changed. All stressed the significant increase in the time and emphasis given to literacy. However, while acknowledging a wide range of changes, some qualified this in statements like, ‘a lot of what was going on was here already’ and ‘I always felt that we weren’t so far away.’ Five of the headteachers emphasised the priority now given to hearing children read on a daily basis. They described the approach as being ‘more systematic’ and ‘more deliberate’. They believed that the ‘extra help,’ in classes had made this possible.

All made frequent reference to the increased work on rhyming; the greater exposure to print; and more systematic teaching of phonics. Teaching letter knowledge from the start of schooling was identified by all headteachers as a change to practice and four mentioned that letter names were now being taught. One interviewee had reservations about some of these changes:

I was a bit concerned that we were going backwards... but I also think that we probably didn’t do enough phonics to start with, so it’s about getting the right balance. It needs to be managed very carefully. [H.T.4]
The headteachers unanimously supported the intervention project’s approach to the teaching of writing. They spoke positively about the move away from the emphasis on teacher scribing and welcomed the introduction of independent writing. Five headteachers said that they had significantly increased the amount of literacy resources in their schools and that they had purchased many of the recommended resources. The Headteacher in School 3 felt that because of budget restrictions, she had not been able to provide everything that she ‘would have wanted’.

**Classroom Organisation**

Apart from the headteacher from School 2, all emphasised that changes had been made to the organisation of the day in the infant classes. The most frequently mentioned reason for this was having extra adults in the classrooms which, many believed, had instigated a more systematic approach to timetabling so as to make the most effective use of this extra support.

Four interviewees reported that literacy instruction now always took place in the morning when, they argued, ‘children had the greatest capacity for learning.’ Headteachers in Schools 1, 3, 4 and 6 described the change from the previous style of classroom organisation where, at any one time, different groups of children worked on different curriculum areas; now there were blocks of time when everyone worked solely on literacy activities. One Headteacher reported that she knew that others had moved to this type of organisation, but said that she did not favour this approach.

**Quality of Teaching and Learning**

When asked if the intervention had impacted on the quality of literacy learning and teaching, all the headteachers began by stressing that the quality had been high before the intervention. However, they offered no evidential base for their perceptions nor did they make any reference to the pupils’ pre-test scores (Chapter 9). All but one mentioned aspects of literacy teaching and learning that they viewed as having changed for the better in some way. Participants argued that they knew of these improvements because they had spent time observing in classrooms. They identified a range of diverse aspects of quality as having changed for the better. These included: a greater consistency between classes in the quality of teaching and learning; opportunities for increased scrutiny of teaching practices; and a more comprehensive approach to literacy teaching.
Headteachers in Schools 1, 3 and 6 suggested that increased teacher expectation had impacted positively on the quality of teaching and learning in their schools. Some differentiated between improvements in the quality of teaching and that of learning. As one said:

I think the quality of learning may have improved because the children are getting success and achievement in literacy, which leads them to have success and achievement elsewhere. [H.T.1]

The Headteacher from School 6 explicitly cited evidence which documented the impact of the intervention. She referred to success criteria listed in her school development plan, and used these to support her evaluation that there had been an improvement in the quality of literacy teaching and learning.

**Effect of Previous Beliefs**

All interviewees made reference to their previous beliefs concerning the teaching and learning of literacy skills. In terms of teaching writing, headteachers seemed to fall into two distinct groups. Three indicated that involvement in the intervention had impacted on their beliefs about what was the most effective approach to this. The following is an example:

Trying to get the children to write. That for me has been the most significant thing for my own practice. If I was taking a Primary 1 again that would be the most significant change. I feel I would be much more confident about how I went about that and that I could get results from the children. And so for me that is a real personal shift in my thinking. [H.T.4]

The other three headteachers indicated that, although the previous methodology used in their schools had promoted a particular approach, they had always held different beliefs about how children should be taught to write.

I always knew that for most children they come to writing before they come to reading, and because we waited in the past until they could actually manipulate the materials, we held them back. [H.T.3]

Four participants discussed the recommendations for teaching reading and three indicated that these were in accordance with their previous beliefs. As one of these interviewees said:
I believe that there are difficulties depending on your philosophy prior to the project. We always had a core reading scheme. We always had phonic teaching of some kind. You know we taught strategies, so maybe it wasn't such a radical change for us. [H.T.1]

One headteacher claimed that many of the project recommendations challenged her previous beliefs and, to some extent, she viewed the implementation of these approaches in her school as being 'a compromise.' However, she felt that her staff were strongly in favour of these changes in practice.

**Deployment of Staff**

All headteachers had redeployed their learning support teachers to work with children at the Primary 1-3 stage. For the majority of schools this was a change of practice, and for all a change in emphasis. In all the schools this had resulted in either total withdrawal, or a significant reduction of learning support provision at the Primary 4-7 stage. Many reported that this decision had caused a 'moral dilemma' within their schools. However, the majority claimed that the upper school teachers supported the change. The importance of a shared decision-making process was highlighted by four of the headteachers and is illustrated by these comments:

This was done with staff agreement and that is needed for major change. [H.T.6]

I think everybody was fine with that because of the training that they all did together, and the fact that everyone was involved in the initial decision, and everyone was active. [H.T.3]

Almost all mentioned other changes to the deployment or remits of staff: for example a nursery nurse had moved from the nursery to the Primary 1 class; and a home-link teacher's work with families was now specifically to develop literacy. Headteachers from Schools 1, 2 and 4 had used monies from a range of budgets to employ nursery nurses. All spoke positively about the changes they had made. However, one headteacher voiced concerns that it could be 'a bit overwhelming for staff rather than a help' to have so many personnel working in classrooms.

Headteachers in Schools 1, 2, 4 and 6 reported that they were involved in 'much more teaching' than before, and that this focused specifically on literacy. Another explained that she had wanted to teach, but because of the demands on her time she now realised that this had been an
'unrealistic' aim. The frustration she expressed at this outcome was in sharp contrast to the strong sense of satisfaction expressed by those who had been able to teach as part of the project.

**Parental Involvement**

All the headteachers believed that involving parents in children's literacy development was important, and that it was the school's responsibility to support this. All stated that they had tried some new strategies. These included sustained initiatives such as shared reading projects; and one-off approaches aimed at encouraging parents to come to workshops, like the school that offered 'wine, cheese and free books' as an incentive to attend.

All interviewees identified measures they had taken to inform parents about the intervention initiative. They unanimously reported that parents had always been given information about how reading was taught, however, three mentioned that offering information about writing was a new development. Headteachers all claimed to have offered parents more explicit advice than in the past and five headteachers also referred to their plans for the following session to further develop the literacy-based work with parents.

While each cited at least one success, there was some clear divergence of opinion about the impact of the project on this area. Two interviewees believed that the positive impact on parental involvement had been considerable. Another two thought that there had been a slight increase, while another felt that although involvement had not increased, the 'quality' had been good. The sixth Headteacher identified a few successes, but made the strong point that in her opinion there had been 'no identifiable increase.'

If I was looking for a failure in the project, parental involvement is that failure. [H.T.1]

All identified the on-going difficulties they faced in promoting this type of work. This was reflected by their use of a recurring metaphor when discussing parental involvement. They referred to the importance of getting a 'captured' audience of parents; and about ways to 'entrap' and 'catch' them.
Involvement of Outside Agencies

When asked about their involvement with outside agencies, three headteachers referred to the personnel with whom they had collaborated in setting up the intervention. They identified work with the researcher/developer as a new link with a teacher education institution, and collaboration with the developer/educational psychologist as a new local authority link. These headteachers believed that the cycle of consultation, staff development and evaluation undertaken with these workers had resulted in significant, positive collaboration. The other three headteachers reported that they had not established any new links with outside agencies.

Three interviewees spoke positively about re-establishing links with a local library. While, one expressed ‘disappointment’ at not having established new links with any community agencies. All headteachers mentioned that they had initiated a change in the role played by outside agencies that were already working with their schools. For example, social workers were now involved in developing literacy skills and running an after-school literacy club. Staff from a local authority children’s project were focusing their work on developing literacy at school and in the homes. And, in some schools, volunteers from a local university were now working on literacy activities with children.

Category: Impact on Children

See Appendix 4 for Tables 3A and 3B describing this category.

Sub-categories

- Motivation and Active Involvement
- Progress and Achievement
- Reading, Writing and Awareness of Print
- Awareness Of Strategies/Disposition To Use Strategies

Motivation and Active Involvement

All the headteachers considered the project to have had a strong positive impact on children’s motivation. They frequently referred to children’s ‘active involvement’, ‘enjoyment’ and ‘enthusiasm’ for literacy activities. One remarked that, ‘The children were eager to learn and eager to read’, while another said ‘There is a buzz about literacy’. All, spontaneously, offered a
variety of anecdotes to justify their claims of a considerable increase in children's self-directed involvement in the process. The following is an example:

At the school sale, the teacher of an older class commented on how interested in books the wee ones were. You know, there were all sorts of other things for sale, but she commented on how interested the wee ones were in buying books. [H.T.6]

In Schools 1, 3 and 6 headteachers emphasised links between this perceived increase in motivation and the successes they believed children to be experiencing. As one explained, ‘They see themselves achieving and that motivates them further’. Frequent references were made to the children’s efforts, with descriptions of children ‘working hard’ and involved in sustained activity.

All headteachers highlighted the key role of the teacher in promoting motivation and active involvement. They identified the use of praise and encouragement, and the importance of building relationships with children, as important factors. In Schools 1, 3 and 6 headteachers spoke at length about the importance of teachers’ expectations of children. They believed that during the intervention, expectations of what children were capable of in terms of their literacy learning had increased. Developing children’s self esteem by explicitly acknowledging their achievements in literacy was mentioned by interviewees in Schools 1, 2, 3 and 6. Examples of this were awarding certificates; exhibiting writing on ‘the effort wall’; and inviting children to present their work at school assemblies.

The positive effects of older children working on literacy activities with younger pupils were reported by headteachers in Schools 1, 2, 3 and 6. They described activities such as, younger children reading with a paired reading partner; and older children supporting literacy activities by reading stories or helping younger children to chose library books. These headteachers emphasised the efficacy of this strategy for fostering young children’s disposition to become literate. They felt that this approach had impacted positively on the motivation and self-esteem of the young readers, and was helping to establish good relationships between children at different stages of the school. According to the headteachers this ‘inter-class support’ had also impacted positively on the self-esteem of the older children.
**Progress/Achievement**

Headteachers all discussed the project’s positive impact on children’s progress and levels of achievement in literacy. They all believed that children’s progress in writing was particularly significant, describing it as ‘really amazing’ and ‘far more than ever expected.’ Almost all felt that children’s levels of achievement in reading were higher, but warned that these views were only impressionistic. As one explained, ‘we haven't done any formal measuring yet’.

Five spoke at length about a group of children who had, what they viewed, as intractable difficulties. Interviewees made strong cautioning points when discussing the progress and achievement of these children. As one headteacher explained:

> There is always going to be a group of very slow learners that no matter how much you put in it's hard. You could literacy project all day, every day, and they would still come in tomorrow and not know what they were doing. [H.T.5]

An interviewee who expressed satisfaction with the children’s progress, felt that it was very important to qualify these comments when her pupils’ attainments were measured by the Scottish Exam Board, 5-14 National tests in reading and writing. She said:

> We looked at level A tests and realised just how poor our children still are compared to that, so its all relative. [H.T.1]

Headteachers in Schools 1, 2 and 5 argued that the intervention had created, ‘a widening gap’ in achievement levels. They identified this as a significant factor which would have to be addressed in future planning. This development was described in detail by one interviewee:

> I think the whole project is going to make a wider difference between the have-nots, the cans and the can-nots in the children. Those who never do their reading at home; those who never get encouragement at home; those who are off, constantly absent; those that never bring their reading books. The others are going to go streets ahead of them. The gulf is going to get wider and they are going to get more disenchanted because they are going to see everyone being so much better than them. [H.T.1]

Conversely, the other three headteachers believed that all the children had benefited from the intervention and while they thought that there would always be a ‘bottom group and the ‘highfliers’ there were now more children ‘doing reasonably well’.
Almost all suggested that changes in practice were responsible for any positive impact on literacy achievement. However, one interviewee cautioned that it would be difficult to isolate the factors that had ‘made the difference’ because of the variety of teaching styles in use and because of the different dynamics at work within classrooms. Two argued that any positive impact on literacy achievement was also strongly connected with an increase in teacher expectation.

**Reading, Writing and Awareness of Print**

There were unanimous reports of a considerable increase in children’s awareness of print. They described children talking more about print, pointing out letters and words, and using print. Again, recounting anecdotes to exemplify a point was a popular strategy. The following is typical:

> During the assembly a child pointed to the song sheet and shouted out, ‘Mrs B, Mrs B, There’s the letter O and I can see an A’. [H.T.3]

Almost all commented about children’s increased knowledge and awareness of the sounds in words. This was viewed as an important development and interviewees believed that children were now being taught the ‘foundation skills of reading.’ All mentioned that children were involved in more reading activities with adults than before.

The positive impact of the intervention on the children’s writing was mentioned by all headteachers and they frequently used superlatives when describing this. A number believed that children had a more confident approach to tackling written work and there were frequent mentions of children doing much more writing than before. In Schools 1, 3 and 6 headteachers’ reported that teachers had added writing materials to the children’s play resources. The children’s voluntary use of these materials for their own writing purposes was cited by these headteachers as significant. Three headteachers said there were more displays of writing around the schools; they described observing children going to these displays and reading their work and that of their classmates.
Children's Awareness Of/Disposition to Use Strategies
A theme emerged that was unique to the interviewees in Schools 1, 3 and 6. These headteachers claimed that children were demonstrating an awareness of the strategies they had been taught and were making use of these strategies. They offered a range of examples to support their claims including: children using the language of books; demonstrating an ability to manipulate the sounds in words; and actively referring to the common words they had learnt. These headteachers made extensive use of stories to highlight what they saw as significant events:

A parent of a primary one child told his teacher that when the family had moved house her child had kept the 'For Sale' sign, and that he stored it under his bed! She said she had been passing her son’s bedroom door and had heard him talking to himself. She peeped round the door and saw him holding the 'For Sale' sign and speaking to his teddy bear. She said that she was sure that he was playing at teaching his teddy to read because she had observed him pointing to the letters on the sign saying to his teddy, “Say ‘f’, say ‘o’, say ‘or’, say ‘for.’” Good, you’ve read the word ‘for’. Now what sound does this word start with? ‘S’, well done. [H.T.3]

They argued that they had a strong evidential base to support their claims of changes in children’s reading and writing behaviour from previous years. They said that on frequent occasions they had closely observed children involved in literacy activities and they had also gathered a range of information during discussions with classteachers. As one interviewee said:

They are always coming to me and talking at length about how they feel that the children are actively involved in learning to read and write, more involved than before. They tell me lots of stories about individual children and the progress that each child is making. [H.T.3]

This theme of children’s awareness of, and disposition to use the strategies they had been taught, was cited by these headteachers as being particularly significant. They unanimously felt that this development was the result of the more explicit and systematic literacy teaching that was being undertaken by classteachers. One Headteacher said:

The teachers have explicitly told the children that the more they read the better readers they will become. I think that this had had an impact on them doing their reading at home with their parents. I am seeing a lot more reading markers being signed by parents than before and I think that a lot of that must be coming from the children. I think that they must be bullying their parents, you know, saying, ‘You will hear my reading. I want the marker signed. You must do it.’ [H.T.1]
Category: Impact on Staff

See Appendix 4 for Tables 4A and 4B describing this category.

Sub-categories
- Collaboration
- Self Esteem/ Confidence
- Enthusiasm and Motivation

Collaboration

All the headteachers believed that involvement in the project had promoted and increased levels of collaboration amongst staff within, and between schools. All claimed that the overarching benefit of this had been a positive impact on school ethos.

They all described a range of measures that they had introduced to encourage collaboration, as well as developments initiated by staff themselves. They considered that the cross-institutional approach to staff development where participants took part in cluster group and paired-school sessions had promoted collaboration amongst the schools. The following is representative of the headteachers' perceptions:

The in-service days were a good opportunity for teachers to meet with other members of staff from different schools, and to work with other people. The fact that we have all collaborated together is a tremendous benefit. We've had each other to talk to and this has helped us move on. [H.T.5]

All believed that although the main focus of the intervention was the early years, the initiative had been viewed as a whole school approach to improvement with, for example, all teachers and headteachers taking part in the training. They argued that because all staff were involved there was a clear sense of everyone ‘working together towards a common goal.’ All felt that collaboration amongst teachers within schools had increased. Summing up this perception, one said:

Making it a whole-school initiative meant that teachers could collaborate with other members of staff at different stages of the school. They certainly have worked together. [H.T.5]
Headteachers in Schools 1, 3, 5 and 6 had organised meetings where, it was claimed, participants had discussed the development of the project, exchanged ideas, and evaluated and shared resources. Two mentioned that they had initiated joint planning sessions between teachers at different stages, while another said that this practice was already in place. These three headteachers from Schools 1, 3 and 6 all expressed confidence that joint planning sessions had increased the levels of collaboration and communication.

One headteacher said she had organised visits for her staff to other cluster schools, and another described opportunities she had set up for teachers to observe and work alongside other teachers in their own school. Interviewees reported that teachers had offered very positive feedback about these experiences. However, many headteachers believed that there was still potential for more developments to promote collaboration between teachers and schools. They posited that this was an effective way to share good practice, but stressed that there were organisational hurdles’ to get over.

Headteachers in Schools 1, 3, 5 and 6 described collaborative activities initiated by staff. These included: co-operative teaching sessions; literacy activities involving children from different classes; and after-school events for parents. Some teachers had organised meetings outwith school hours which staff from all school stages had attended. These ‘get togethers’, identified as a ‘new development’, were a forum for offering advice, and sharing and evaluating resources.

Almost all headteachers believed that increased levels of collaboration had been a support for their staff. They perceived this collaboration to have contributed to the confidence building which they believed was a central requirement when embarking on a new initiative. They frequently mentioned that working together had supported staff in dealing with anxieties and concerns. The following comment sums up this perception:

I think it’s been quite good from our staff’s point of view, in that when you are taking on a new initiative and you work with other colleagues, there is that feeling that you are not alone. That was good, and it also just gave staff reassurance that other folks had perhaps the same concerns, fears and worries. A lot of good things came from this; certainly a wee bit of confidence building came from the collaboration between schools. [H.T.6]
Headteachers in Schools 1, 3, 5 and 6 commented on, what one described as, 'an increase in professional dialogue' amongst the staff. The evidence they gave for this was based on teachers' involvement in discussions, both with colleagues and headteachers, about aspects of the intervention project. These informal discussions were observed taking place either at interval or after school. The four headteachers who emphasised this 'talk' amongst staff, all stressed that this was a significant development. In their opinion, it reflected the high levels of collaboration, engagement and developing ownership of the intervention that they had identified amongst their staff. The following illustrates their views.

They are articulating what they are doing. They are talking to each other about what they are doing and letting each other know what they are doing. They bring in articles about literacy from newspapers and stick them up on the staffroom wall, and that gets everybody talking. [H.T.3]

Self Esteem/Confidence
The majority of headteachers thought there was increased self-esteem and confidence amongst staff. Opportunities for discussion and collaboration with colleagues was cited as having supported this 'confidence building'. As one said:

... after all the opportunities to discuss and talk about things, the teachers feel that they're coming from the same starting point. They are very competent teachers, but this has given them more confidence in their own ability, and has really built up their self-confidence. [H.T.2]

All considered that the training sessions had contributed to staff development and had impacted positively on professional confidence. Headteachers from Schools 1, 3 and 6 discussed the positive impact on the self-esteem of some teachers who had been invited to talk to other local authority schools about their work in the intervention project. Interviewees spoke positively about staff giving presentations to the cluster schools - an experience which they believed had 'been instrumental in building up self-esteem,' and had demonstrated 'just how confident staff are now about talking about their classroom practice.' Two headteachers mentioned the 'pride' they experienced when listening to their staff. One said:

It was wonderful to hear her talk with such authority about her teaching. [H.T.3]
There was a sense of pride and satisfaction that the intervention had been initiated by the cluster of schools and taken forward collaboratively without external funding. Headteachers believed that the cluster was 'quite unique' in the way it had approached this initiative and they indicated that involvement in the process had had a positive impact not only on their own self-esteem as managers, but also on the self-esteem of the teachers. Describing this collective sense of achievement one said:

It's the fact that we have been doing it as a whole cluster, and in a way doing it unsupported. The feeling that we can do this, and we can do this without thousands and thousands of pounds because we will use what we have got. We are all proud of what we have done. [H.T.3]

**Enthusiasm and Motivation**

All emphasised the quality and extent of their staff’s positive involvement in the intervention and much use was made of words like ‘enthusiastic’, ‘motivated’, ‘committed’ and ‘hard working’. The following comment is typical:

The teachers’ enthusiasm for the project has been the real plus of all of this. I think the teachers have been enthused. They’ve got themselves involved and they’ve been committed. There is a great feeling around, a very positive feeling, that it is the staff who have made it all work. [H.T.3]

All considered that a major reason for the teachers’ active participation was because staff had identified children’s literacy development as an area which required attention. Headteachers argued that teachers saw the aims of the intervention as ‘a priority’ and that they ‘saw the point of it all.’ They all emphasised the notion of personal purpose as underpinning teacher’s ‘willing participation’ in the project. One Headteacher admitted that she had been concerned that her staff might view the project in terms of workload issues, however they had not seen it as ‘an extra chore’, but rather as ‘a natural development’ in addressing an identified need.

The links between teachers’ enthusiasm for the intervention project, children’s achievements and school ethos were identified in Schools 1, 3 and 6. Interviewees identified a cycle of events that they believed had positively affected implementation in their schools. Their perception was that staff were implementing the recommended strategies, children were progressing and consequently, this was highly motivating for staff. Headteachers believed that this cycle of
positive reinforcement had contributed to the efficacy of the implementation process and of school ethos. As one said:

I think it has motivated them to keep going with the work. Teachers keep coming to me saying, ‘Look at what so and so has done.’ They are getting success in the classes. They are seeing the children achieving and therefore that has increased the positive ethos in the school. [H.T.1]

The headteachers’ perceptions of the positive impact on children’s motivation has been discussed in a previous section. Headteachers from Schools 1, 3 and 6 identified a similar cycle of positive reinforcement for staff, to that experienced by children. One of these interviewees emphasised the ‘positive buzz about the place’ and another believed there was a ‘real feeling of enthusiasm throughout the school.’

Category: Staff Development
See Appendix 5 for Table 5 describing this category.

Sub-categories
• In-service Sessions
• Change Agents

In-service Sessions
All referred to some positive aspects of the impact of the training sessions. Headteachers in Schools 1, 3, 4 and 6 cited them as having been one of the major successes. They described the sessions, as ‘having had a tremendous impact on staff,’ and the ‘impetus that got everyone going.’ All claimed to have used all their staff development budgets on the intervention training, however, the majority believed that it had been effective expenditure because all staff had taken part.

All agreed that adopting a whole-school approach to staff development had impacted positively on collaboration within schools and had reinforced the message that everyone was working towards a common goal. Interviewees made statements like ‘it bound the staff together’ and ‘they were committed to the aims of the project.’ Headteachers in Schools 1, 3, 5 and 6 felt whole staff involvement in the training had led to greater understanding and support for
decisions taken during the implementation. The increased resource allocation to the early year’s classes was given as an example of such a decision.

Many stressed the importance of all teachers being seen as teachers of literacy and they argued that a range of the recommendations could be used at all stages of the school. Five headteachers believed that the whole-school approach to staff development would promote continuity and consistency in literacy teaching within each school. Four considered that the involvement of all staff had led to an increase in the commonality of approach amongst the cluster schools. One Headteacher remarked:

I think it’s drawn schools closer together in their methods of teaching literacy. They were very diverse before because everybody had their own views. I think it will help immensely because many of the children in this area move about from school to school, and now they will be getting a consistent approach. [H.T. 2]

However, headteachers from Schools 3 and 6, which had the lowest free school meal entitlement, were more cautious in their claims. While they agreed that all the schools should be working within ‘broad principles,’ one identified the ‘diverse nature’ of the cluster schools and she posed the question, ‘How common can the children’s experiences really be?’ The other made the strong point that commonality of experience might be difficult to achieve, because, as she saw it, the needs of the children were ‘extremely different.’

Four headteachers mentioned their initial meeting with the developers. They argued that this session had played a crucial role in the development of the project. They believed that this was the point when the group made the decision to prioritise the intervention initiative in the cluster development plan. They reported that they had discussed a range of issues and that had helped them, as a management group, to focus on what was required to take forward the initiative.

There was some divergence of opinions as to the aspects of the in-service sessions that had been most effective. Headteachers in Schools 1, 2, 3 and 6 specifically mentioned the emphasis on research-based content. They cited this as having had a major positive impact on the professional development of all the personnel involved. The following comment illustrates this view:

I think that they have gelled together a lot more looking at the implications of research than we’ve done before. It really got people thinking and discussing. [H.T. 2]
Three of these headteachers believed that much of the content covered had been new to some of their staff. These interviewees were of the opinion that research-based content related to early literacy acquisition was not being covered in pre-service courses. However, one had reservations about the time allocated to this during the training. She particularly praised one of the sessions which she considered had been ‘more practical’ and more ‘relevant’ to the needs of her staff.

Overall the headteachers believed that teachers had benefited from their involvement in the training. One Headteacher stated:

The staff have learnt a tremendous amount and I think that what they have got out of it has been a bit more measurable than some of the other things that we have done for professional development. [H.T.3]

**Change Agents**

Two headteachers made no comments in this category. Interviewees in Schools 1, 3, 4 and 6 introduced the theme of the role played by the staff development team. They believed that these outside agents had had a considerable influence in bringing about change.

Three of these interviewees expressed satisfaction that the involvement of outside agents had promoted changes in practice that they personally had been struggling to initiate for some time. The following statements illustrate this perception:

I had tried to get the infant staff to teach the alphabet from the start. They had taken it on-board, but it wasn’t done in the same way as now, with the same importance, and so it’s that kind of thing which has been helpful: somebody else coming in and saying that we should do it, and linking that to the research. Now that was just a reinforcement of what I had suggested. That was good. [H.T.6]

I had tried to get staff to use this [a particular literacy resource] with little success, but now they actually see that it works and they are very enthusiastic about it. And that’s because it has been given credibility from people other than me, from outside the school. [H.T.3]

These three headteachers spoke at length about this theme, referring to the ‘external input’ as having been ‘really helpful,’ and discussing how this had given ‘some clout’ to practices which they had been attempting to get underway in their respective schools. One argued that the combination of the joint in-service and ‘outside people’ leading these sessions had been a crucial
factor in promoting changes in practice. She described this approach as having ‘added a certain dimension that makes the project easier to sell, and it makes it easier to take the staff with you than if you were just doing it internally.’

The fourth Headteacher in this group was equally convinced of the influence demonstrated by the staff development team. However, she expressed some personal reservations about this:

I was also a bit niggled. It was always so hard to change what they were doing. They didn't do it before, and now they are doing it because of the project and other people telling them to do it. [H.T. 4]

While headteachers in Schools 3 and 6 acknowledged the impact of the outside agents on practice in their schools, they still perceived themselves to be in control and managing the intervention project. One summed up this view:

Before this project started I had certainly influenced things already, but slowly, and this was good for me to have an outside body, as it were, leading the initiative, but basically I was leading the initiative, if you see what I mean. [H.T. 6]

Headteachers from Schools 1, 3, 4 and 6 seemed to use the development team as ‘an interested party.’ For example, one Headteacher explained that when her staff came to her with stories about children’s achievements, she would discuss them and then she would say enthusiastically, ‘You’ll have to write that down for X’ [member of the development team].

Two of these headteachers also emphasised their own role as agents of change. In their view, by teaching alongside classteachers, they had modelled certain approaches and as a result had influenced classroom practice. They believed that they had played a part in changing the methodology used in their school for teaching literacy.

Category: Evaluation/The Way Forward
See Appendix 4 for Table 6 describing this category.

Sub-category:
- Success Of The Initiative
- Factors Outwith The Control Of The School
- Sustaining The Momentum
Success of The Initiative

Rating the importance and success of the intervention in relation to other initiatives, there was unanimity of response: all headteachers rated it very highly, and viewed it as very successful. All used superlatives, describing the initiative variously, as ‘extremely successful,’ ‘highly important’ and as having had a ‘tremendous impact.’ All cited general improvement in children’s literacy achievement as the most successful outcome, with improvements in independent writing skills as being particularly noteworthy. Four believed that the positive effects on children’s early literacy acquisition would have potentially long term benefits.

The professional development of staff also received favourable comment by four of the group. The increase in collaboration amongst their staff, and the increase in learning support provision at the infant stages were named as major successes by two of the interviewees.

When asked about the least successful elements or outcomes, three headteachers were unable to identify any. The other three focused on different aspects. One felt that because of management pressures, she lacked the time to sit down and ‘really work things out’ with her staff. She planned to dedicate specific blocks of her time to this during the project’s second year. Another, expressed strong concern at what she perceived to be ‘the widening gap’ in children’s achievement. She was ‘worried about the low-achievers’, who she felt might become ‘even more disenchanted’ as they saw their more able classmates ‘progressing even further’. She questioned whether, in terms of promoting early literacy acquisition and preventing early literacy failure, the intervention was having the positive effect on the very group that it had been designed to support.

Change to the balance of the curriculum was described by one of the interviewees as being an unsuccessful outcome because other curriculum areas had ‘fallen by the wayside’. However, she said that she wanted to qualify this response because she felt there would be benefits later on.

Factors Outwith the Control of The School

Four headteachers mentioned problems that had occurred which they described as being outwith their control. They emphasised difficulties experienced as a consequence of the staffing in their
schools. Two interviewees drew attention to the fact that over half their staff were probationary teachers and stressed the amount of time that had been required to support such a high number of newly qualified teachers. Others variously expressed concerns about the high turnover and number of supply teachers.

Two headteachers complained that budget restrictions had prevented them from providing the ‘whole range of resources’. One described an interesting phenomenon that she called the ‘yo-yo effect’. She explained that if her school was successful in raising literacy standards, then these improvements would be reflected in the local authority audit and she could lose some of her extra staffing allocated to support children with low literacy attainment.

*Sustaining the Momentum*

All believed that prioritising management time was a critical strategy for sustaining the momentum of the initiative. Headteachers in Schools 1, 2, 3 and 6 stressed the need to maintain a careful balance between ‘consolidation’ and ‘development’ and the importance of ensuring that changes in practice already made were firmly in place, before moving on with the initiative. Much use was made of words like ‘concentrate’ and ‘focus’. The general feeling of the group is illustrated by the following comment:

.... if the early intervention initiative is going to work, it has to be built on. And, I suppose the implication is that we don’t rush off and get involved in another initiative: that we actually consolidate and take it on board in its entirety. [H.T.6]

The need to build on the experiences of the first year of the intervention were stressed, however, one headteacher cautioned that any development required to be appropriately paced, and she acknowledged that that had been a ‘hard thing for her to learn.’ Three headteachers believed that it was crucial to sustain any gains made during the project, particularly by children in their first year of schooling. They argued that it was vital to continue building on early achievements and successes. Encouraging parental involvement in the development of children’s literacy skills at the pre-school stage was also identified by two headteachers as a potentially powerful strategy for sustaining the momentum.

Only two headteachers offered their views on the role of the cluster in taking the initiative forward. Interestingly, there was a divergence of opinion between their viewpoints. One
suggested that a 'yearly get-together and some sort of review' would be beneficial. However, the other was more cautious in her recommendations for cluster involvement. She argued that they would have to get the 'balance right' between the needs of the cluster and those of the school. Rather than a whole cluster event, she reported that her staff would prefer what she described as, 'a more low-key school thing.'
Discussion

The following analysis makes use of two organising constructs in presenting the key findings from the headteacher interviews. The first is the change processes taking place at different levels and the second focuses on the similarities and differences between headteachers’ perceptions.

Structures and systems

There was strong evidence that involvement in the intervention had triggered changes at the level of systems and structures, both across the cluster and within the individual schools. The extent of the reported impact was striking and included: recruitment of external support; initiation of inter-professional collaboration; instigation of cross-institution and whole-school staff development; reallocation of resources; redefining roles and redeployment of staff; employment of new staff; reallocation of management time; initiation of increased collaboration within schools, including joint planning and co-operative teaching; changes to classroom organisation; changes to curriculum balance; and creation of a new policy document.

In terms of the literature reviewed, combinations of the above have been highlighted as likely to support improvement efforts. What was noteworthy in this study was the extent of the range of changes identified. Analysis of the findings suggests that certain key factors facilitated this intensive impact at the level of structures and systems.

Firstly, working together as a cluster group towards a common goal, arguably, was empowering for individual headteachers. They described the group support they had experienced and it is possible that this strengthened their capacity for initiating change. Moreover, by setting up an inter-professional alliance with developers from outwith the schools, they created a framework of support to help take forward the cluster strategy for planning the intervention and the school-based implementation.

The key role played by outside agents in school improvement initiatives is well documented in the literature (Fullan; 1991; Learmonth and Lowers, 1998; Harris and Hopkins, 2000). In this study the evidence suggests that involvement with the outside agent had an impact both at individual school level and cluster level. A key finding is that in terms of enhancing capacities
for change and development (Harris and Young, 2000) it seems that building this external alliance had further empowered the headteachers as a cluster group in working together towards the identified goal. Moreover, it would appear that individual headteachers felt supported by both the cluster, and the outside agents whom, they believed, their staff saw as other people ‘giving clout’ to the initiative. These findings lend themselves to the possibility that this particular combination of cluster collaboration and networking outwith the school created a very powerful framework which both supported and promoted the change process.

An interesting discovery was that headteachers considered that the staff development sessions, while aimed at developing practice, had also facilitated changes to systems and structures. They believed that the sessions had achieved this by impacting on a range of areas. Firstly, they further developed staff commitment to the intervention; secondly, they were the stimulus that ‘got things going;’ thirdly, they reinforced the notion of everyone working towards the same goal; and finally they helped teachers understand the rationale for the changes.

It is worth noting that any barriers associated with supporting change efforts emanated from, what they perceived to be, system and structures at local authority level that were outwith their control. These included issues associated with staffing, budget, resources and management time.

The involvement of a cluster of schools is identified as a potentially effective strategy for taking forward an initiative (Kovacs; 1998; Joyce et al., 1999; Stoll, 1999). However, also highlighted is the need to employ differentiated strategies to address the varied potential that exists within schools for change and development (Hopkins and Harris, 1997; Dalin, 1998; Harris, 2000; West, 2000). Headteachers were aware of the contextual difference between their schools, in particular those that existed between schools with higher and lower levels of FME. Interviewees highlighted the tension between the needs of the cluster and those of their individual schools. However, almost all indicted that they saw it as their role to address this and to make ‘things their own’ within each of their schools contexts.

There was clear sense that it was within the individual schools that, as one headteacher put it ‘the real action’ took place. While headteachers seemed empowered by their collaboration with the cluster in terms of the planning and initiation of the intervention and getting staff endorsement
for change, when it came to implementation it was the school that was strongly identified as, what Dalin and Rolff (1993) call, ‘the driving force.’

Running through the interviews was evidence of the interrelationship that existed between the two levels of school and cluster. The headteachers seemed to play a key role in promoting this interrelationship and there was sense that their role as a member of the cluster management team complemented their management role in the school. However, it was interesting that in discussing the continuation of the intervention only one suggested bringing staff together again as a cluster group. One possible explanation for this is that headteachers might have believed that, in this initiative, whole cluster involvement had served its purpose.

**Headteacher level**

It was noteworthy that more than half of the headteachers stated a commitment to implement follow-through approaches and demonstrated an awareness of the need for both consolidation and development. The Headteacher in School 1 spoke at length about the need to address the likelihood of fade-out effect: a phenomenon well-documented in studies of early intervention.

Headteachers all referred to elements of their work identified in the literature as necessary for effective leadership and management (Louis and Miles, 1990; Day et al., 1998; Brighouse and Woods, 1999). Headteachers from School 1 and 6 seemed to stand out in terms of the strength of their views about the paramount importance of adopting a particular leadership role and in their willingness to discuss what that meant for them personally.

In contrast to the class teachers, headteachers appeared to have an awareness of the nature of the change process and a knowledge of the conditions that can support this. There was evidence from their statements that these insights had informed their approach to planning and implementation. Much of their undertaking is backed by the literature in terms of good practice. For example, their commitment to involving staff in the process from the start (MacBeath, 1998); showing a commitment to staff development; organising time for discussion and reflection; providing resources to support implementation and involving staff in policy development (Fullan, 1991; Stoll and Fink, 1996; Harris and Hopkins 2000).
It seemed that the headteachers, unlike their staff, had already made sense of many aspects of the change process. These findings add support to the argument that not enough time was given to developing teachers’ understanding of the process of innovation. An effective strategy for interventions might be a focus on sharing what is known about the change process with all stakeholders with the aim of making the process of innovation as transparent as possible.

Classteachers’ strong emotional involvement in implementing the intervention was not evident from the headteachers’ responses. However, there were reports of headteachers experiencing positive feelings of ‘satisfaction’ because of having the opportunity to work in classrooms, as well as feelings of pride in the professionalism of their teachers. The headteachers did not report any of the negative emotions experienced by classteachers. This was noteworthy because their responses demonstrate that leading the change efforts had been a complex and challenging experience. In many cases they had also made changes to their personal practice and organisation and had to alter assumptions and beliefs. As Evans (1996) puts it, ‘The dilemmas involved in actually implementing change’ were very evident from their statements. Take for example the tensions that were evident between commenting on improvement or quality and acknowledging implicit deficits before.

The headteachers viewed it as their role to offer not only professional, but also ‘emotional, support’ during the implementation of the intervention. When they spoke about the importance of ‘offering reassurance’ and assuaging ‘fear’ and ‘anxieties’ their acknowledgement of the human side of implementing change was apparent. (Stoll, 1999). Noteworthy, was the highly personalised approach to support they claimed to have adopted. A key consideration for future projects should be to explore ways of allocating dedicated time for this kind support, which although interviewees had identified as both necessary and valuable, had used up a large percentage of their management time.

Child Level
Headteachers all believed that involvement in the intervention had impacted very positively on children’s levels of motivation and enthusiasm for literacy. For half of them, this view contrasted markedly with that of their classteachers who felt that there was little evidence of this. However, the views of the headteachers in Schools 1, 3 and 6 mirrored those of their staff.
These headteachers claimed that children were demonstrating a clear awareness of the strategies they had been taught, and were making use of these strategies. They also echoed their classteachers' statements about children demonstrating an increased disposition for involvement in literacy activities and experiencing 'a cycle of success'. These developments are studied further in Chapter 8 which explores the perceptions of the children who attended these three schools.

Compared with the classteachers, headteachers were much more positive in their assessment of the impact of the intervention on children's literacy achievements. However, headteachers from Schools 1, 2, 4 and 5, schools with the highest FME, cautioned that there were children with intractable difficulties for whom the intervention was not succeeding. Their description of 'the widening gap' in children's achievement was a clear example of what has been described as 'The Matthew effect' (Stanovich, 1986).

**Teacher and classroom level**

The similarities of headteachers' descriptions of changes to classroom practice with those offered by their staff were noteworthy. As a management group they seemed to have a good knowledge of the classroom level change. While they had clearly gathered much of this knowledge from being in classrooms, their understanding of the intervention's impact on practice may have been further enhanced because of the more focused discussions and increased communication they claimed to have had with their staff.

Headteachers in Schools 1, 3, 5 and 6 reported that there was also increased professional dialogue amongst teachers and more engagement in 'talk about teaching.' Evidence from classteachers' interviews in Schools 1, 3 and 6, where there were high levels of observed and reported discussion, support the perceptions of most of these headteachers. It is noteworthy that claims of increased professional dialogue amongst teachers, mirrored the observation by the headteacher from School 1, that involvement in the initiative had meant that the headteachers 'had to talk education.' Social constructivist approaches to development during an intervention have been found to enhance teachers' understandings (Clay, 1985; Pinnell et al., 1994; Slavin, 1997). There is some evidence from this study to suggest that these approaches may have potential for wider impact if there is also involvement at management level. Arguably, during an
improvement intervention, headteachers and their staff need to examine practice, make sense of the changes and develop their understandings but, importantly, they should do this together.

All the headteachers viewed the role played by the classteachers as crucial in terms of achieving the aims of the intervention. A key finding was that headteachers held an holistic view of improvement. They were interested not only in the part teachers played in raising levels of achievement, but they also spoke at length about affective outcomes: increasing children’s self esteem, motivation and enthusiasm. They emphasised the importance of teachers building relationships with children, offering praise and encouragement and having high expectations. More than half the headteachers were of the opinion that involvement in the intervention had impacted positively on teacher expectations. They believed that this was a key factor in increasing children’s motivation and heightening levels of achievement: a viewpoint that is well supported in the literature (Louis and Miles, 1992; Mortimore, 1998; McCallum, 1999; Mortimore et al., 2000).

Collaboration is identified as a factor in the successful implementation of change (Lortie, 1975; Rosenholtz, 1989; Halsall, 1998). Headteachers claimed that the cluster model of implementation and the whole school approach to staff development increased collaboration amongst teachers. In terms of the latter this appeared to be corroborated by evidence emerging from the classteacher data, however, in terms of the cluster model of implementation this did not seem to have impacted in the same way on the classteachers, although this has been found to be effective in other studies for promoting cross-institutional collaboration (Stoll, 1999; Huberman, 1992). The finding from this study suggested that for teachers, the school was, as one headteacher described it ‘where the action was’ and it was in the school that they developed collaborative practices.

Particularly, in Schools 1, 3, 5 and 6 there was evidence to show that teachers had initiated collaborative activities with the aim of developing children’s literacy skill. Adopting this type of school wide responsibility to heightening achievement has been identified as one of the characteristics of collaborative school cultures (Halsall, 1998; Stoll, 1999).
Using Diaries as a Method of Data Collection

Self-completion diaries have many advantages. Firstly, they are an effective alternative to the interview method for events that may be easily forgotten or difficult to recall. Secondly, they can overcome difficulties associated with gathering sensitive information. Thirdly, they can supplement interview data by providing a rich source of data related to respondents' daily experiences and behaviour (Corti, 1993). They are an excellent additional source of data providing 'the informants' own versions or interpretations of events...' (Wellington, 2000:118).

As well as documenting classroom life and children's learning, entries can offer insights about the participants' individual experiences and perceptions; what teachers write may provide a rich source of data connected with what they believe and what they feel. A diary is both a personal document and a record (McKernan, 1996). Evidence from diaries can be used to increase the validity of the data. It is a procedure that is well suited to what Denzen (1978) refers to as, 'between methods triangulation', when more than one method of data collection is used within the same study.

However, whilst there are advantages in the use of this research method there are also inherent difficulties. Perhaps the most obvious being the problem of motivating diarists (Zimmerman and Wieder, 1977). Three main categories of difficulty associated with the use of diaries in research are identified by Wellington (2000):

- The practical problems associated with getting participants to keep a diary for a period of time. These problems include consistency and reliability; and the time and effort involved.
- There are ethical problems associated with the demands on diary writers in terms of time and self-discipline as well as issues connected with ownership.
- Finally there are methodological problems. Diary writers must have the ability, and also the willingness to write up the diary. Clearly this can lead to bias in the data gathered. (adapted from Wellington, 2000:119)
Classteachers' Diaries

Classteachers from all six schools were invited to volunteer to keep diaries for the first year of the intervention project. The aims of this part of the study were:

- to further develop the 'between methods triangulation' of data collection which was central to the design of the study
- to increase the validity of the data collected during the study
- to gain access to information that participants may not have been willing to give during interviews
- to gain insights about participants' individual experiences, perceptions and behaviour during the implementation
- to gather data about the implementation of the project recommendations and the impact on classroom practice
- to gather data related to classteachers’ perceptions of the impact of the intervention on children.

Potentially problematic methodological issues arose because of the voluntary nature of diary keeping. This could have lead to bias in the data gathered, i.e. away from those teachers who, for whatever reason, did not keep a diary. However, while being mindful of this in the analysis and subsequent claims made, it was evident that there was much to be learned from the diaries. An important aspect of the research design was the longitudinal nature of the study and the diaries offered the opportunity to gain insights about the on-going experience of participants over time.

Method

Participants

Volunteer diary writers were recruited during the staff development sessions. It is claimed that a 'face-to-face' approach when inviting informants to act as diary keepers achieves the best response rates (Corti, 1993).

Classteachers from four of the six schools kept diaries. Table 1 details the number of classteacher diarists in each school and shows that 42% of the Primary 1-3 teachers kept a diary.
Of the ten diarists, eight kept their diaries for all three terms of the first year, while two (one in School 2 and one in School 6) stopped writing after the end of the second term.

Table 7.1: Number of Primary 1-3 Classteachers who kept a diary

<table>
<thead>
<tr>
<th>School</th>
<th>Pl-3 classteachers n=()</th>
<th>Pl-3 diary writers n=()</th>
<th>Pl-3 diary writers %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>2</td>
<td>67</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>3</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>10</td>
<td>42</td>
</tr>
</tbody>
</table>

**Diary Design and Format**

The diary format comprised two A4 pages for a week, with a section for the date. There were clear spaces for writing entries. The diary format was semi-structured in that the key recommendations from the project were pre-categorised, however, this was combined with an open format that allowed respondents to record entries using their own words. There was a final category for extra comments (Appendix 8). The format was designed to encourage teachers to log activities and keep a chronological account of the project’s development. A brief summary of instructions for completing the diary was included. There was also a list of possible issues to consider (Appendix 9). It was hoped that this would act as a reminder to diarists that they were being encouraged to include their personal reflection and interpretation.

**Procedure**

The researcher met with volunteers to explain the diary keeping procedure and deal with any questions. The diarists were asked to spend about five minutes each day noting things that they felt were important, significant or stood out for them. They were asked not only to record events but also to make some comment. Each heading in the diary was considered and examples of the type of activity that might be included were discussed. The researcher thanked the teachers for undertaking to keep diaries. They were assured of confidentiality and that their diaries would be returned.
Categorising the Data

Two main categories and related sub-categories were used to organise the data. These are reported in the next part of this chapter. The main categories arose from two sources. Firstly, from the diary format with its pre-categorised sections that were linked to the project recommendations. Secondly, categories that emerged from the data and offered diarists’ personal interpretation of the more affective impact of the intervention on teachers and children.

Findings from Classteachers' Diaries

Category: The Project Recommendations

- Reading
- Writing
- Developing phonological and phonemic awareness
- Common words
- Resources
- Parental involvement
- Involvement of other personnel

Reading

The diarists unanimously reported a marked increased in the frequency of ‘hearing reading’ and the time allocated to this. Many quantified the number of the books read by children. In all schools diarists claimed that they aimed to hear children read every day. During the first few months, diarists in Schools 1 and 3 had concerns about the quality of these sessions. As one wrote:

Hooray! Heard children read every day but I’m questioning whether it was quality time or whether it was paying lip service. Feeling under constant pressure to get so much done. [School 1]

However, by the end of the first term entries were more positive and diarists seemed to have altered their opinions about the manageability and effectiveness of the recommendation to hear reading every day. The entries suggested two main reasons for this. Firstly, many believed that the increase in time was impacting positively on children’s reading progress; and, secondly...
teachers seemed to have got to grips with the organisational issues. Almost all teachers, now depended on a range of 'helpers' to assist with hearing children's reading.

Diarists detailed many activities aimed at developing reading skills. These included: providing story tapes and books; daily story reading; and visits to the library. Many were using class topics to develop literacy skills and they commented positively about 'the success' of this contextualised approach. A noteworthy change to organisation was the introduction of 'literacy blocks' when all the class worked on literacy related activities.

Teachers from Schools 1 and 3 documented their attempts to use the technical language of literacy in conversations with children. They reported that they always used 'the correct terms', and explained to children 'explicitly' what they meant. They identified this teaching focus as a change to their practice.

**Developing Phonological and Phonemic awareness**

Diaries offered striking evidence about the volume of activities designed to promote phonological and phonemic awareness. Teachers reported having 'taken every opportunity' to support development in these areas. As well as timetabled work, many opportunities had arisen spontaneously. For example:

At lunchtime every day all the children at my table tell me what all the food begins with - e.g. "Potatoes start with 'p.'" Then they take this further- e.g. "Aye and so does post office," so does pencil etc." This activity is always instigated by the children who think it's great fun! [School 1]

All Primary One diarists mentioned the new emphasis on developing 'alphabetic knowledge'. They reported a marked increased in the time spent on 'sound work' and more focused approaches to teaching this. All described strategies they used to develop understanding of rime and onset. In School 1 and 3 there were many descriptions of using explicit teaching strategies such as 'modelling' or 'demonstrating' the process of using rime and onset in reading and writing. Diarists in three schools used a similar expression to indicate that children could identify analogies between words. They all wrote that 'it had clicked.' The mentions of this 'clicking' phenomenon seemed to occur when the teacher and children were working together on an activity. The following entry is typical:
They had to say the odd one out of a group of words e.g. 'fat,' 'cat,' 'sheep,' 'bat'. They could all do it if the odd word was at the end, but if the odd one was in the middle there was confusion. After loads of discussion and exercises, it suddenly clicked with Tom. He said, 'I think I get it.' And, he had! [School 1]

Diarists in Schools 1, 3 and 6 made similar comments detailing their beliefs that children not only knew certain strategies, but also recognised their utility. As one diarist stated:

I think that the children have really started to understand the function of letters, and its now that they are starting to understand that knowing about the letters and their sounds can help them work out what words say. [School 6]

Two entries from a diary, with a period of time between them, demonstrate children's developing awareness of analogy.

On the way home from a farm visit a child said 'Oh Miss! Ducks in the muck! That's a rhyme. [School 3]

Today Katy wanted to know how to spell 'way.' I asked her how to spell 'day.' She recognised that it was a rhyme and worked out the spelling for herself. [School 3]

There were many mentions of 'high levels of print awareness.' Diarists wrote about children 'pointing out letters and words' and 'talking about print'. However, while most believed that children were 'making headway,' many also indicated their concerns about certain children's lack of progress.

Writing

Diarists wrote that adopting the project recommendations for teaching writing was a major change to practice. Many documented children's writing development using this approach. The following entries from School 3 were written over two terms:

Had a go at independent writing. The children were absolutely phased and most found this very difficult. A few did not know where to begin.

I was delighted to see how many children were prepared to have a go.
I encouraged the group to look back at their first piece of writing, and to look at their progress. They were delighted to see how much more they can do now – so was I!

Many included examples of children’s writing in their diary folders as evidence to support their claims about the positive progress that children had made. Many noted children’s ‘enthusiasm’ for ‘having go’ at writing and their motivation and involvement in the process. Diarists in Schools 1, 3 and 6 reported that children chose to write in ‘their free time.’

All the diarists had set up contexts to provide a purpose and an audience for children’s writing. In Schools 1, 3 and 6 many were centred around imaginative play situations, for example, a hospital, a bookshop and settings from fairy tales. In these schools, teachers also described how they took part in the play and modelled the writing process for children.

Common Words
All reported trying to teach the ‘Common Words’. However, almost all the teachers viewed this as an ‘uninspiring’ activity. As one said, it was ‘something you just have to slog away at.’ In some of the final entries, contrasting responses about the success of this strategy were noted. Diarists from School 3 and 6 were generally positive. But, in Schools 1 and 2, while teachers noted ‘some success,’ they were worried that certain children were ‘not developing a sight vocabulary at all’.

Resources
Almost all the diarists mentioned that very few of the recommended resources were in place at the start of the project. They wrote about ‘rummaging in cupboards to find materials,’ and that they had ‘very little to work with’ and bringing in their ‘own stuff.’ By the end of the first term, most said that they had been issued with some of the recommended materials. Diarist in Schools 1 and 6 reported that teachers had been involved in the selection of resources. In School 1 every classteacher had been given £100 to spend on books.

Parental Involvement
Participants from different schools held contrasting views about the project’s impact on parental involvement. In Schools 3 and 6 teachers were generally positive. School 1 diarists unanimously started off on a positive note after a literacy workshop for parents was viewed as ‘very
successful’. However, a month later there was a marked change and they all began to indicate their concerns about parents not ‘hearing’ children read at home. Some also began to suspect that certain parents were signing the reading form, even though they were not hearing reading. The following extract illustrates a teachers’ growing frustration with what she described as ‘a pretty hopeless situation’.

I congratulated Tom on having his book signed for all of the week. He said ‘Yeah my mum signs the book, but she disnae hear me read.’ HELP!!!

A striking feature of the entries from Schools 1 and 3 is the classteachers’ persistence in their efforts to engage parents. It seemed that when one approach failed, they tried another. For example, in School 1, in the same week that teachers reported frustration with the ‘minimal success’ of the ‘home reading’ scheme they instigated a new strategy aimed at getting parents and children to use the local library:

Involvement of Extra Personnel

All diarists reported that they now had a number of extra personnel ‘helping’ in their classrooms. Diarists viewed this development very positively. They described the assistance as ‘invaluable’ and as having ‘made a huge difference’. One crucial advantage of having additional help, which was stressed by almost all diarists, was that it allowed them to work on a one-to-one basis with children. As one diarist said, ‘I’ve got a great deal of satisfaction from being able to work with individual children.’ They spoke of this opportunity to offer individual support as ‘a real breakthrough,’ ‘very effective’ and ‘maybe the answer.’

However, teachers also noted that working co-operatively with other professionals was ‘challenging’. Many pointed out that they were not accustomed to working alongside other people, nor were they used to explaining, as one put it, ‘the what and why of teaching.’ It seemed that many found themselves in the position of having to teach other professionals and volunteers ‘how to do it’. This was viewed as particularly difficult in cases where personnel had joined the school after the start of the project. Some diarists claimed that they had found themselves co-ordinating the induction process for newcomers.
**Category: Impact on Children and Teachers**

- Children: affective and academic outcomes
- Teachers: emotional response
- Teachers: reflection
- Teachers: confidence and self esteem

**Children: affective and academic outcomes**

In all the schools, apart from School 2, teachers felt that the intervention had impacted positively on children’s motivation, enthusiasm and involvement in literacy activities. What was striking, was the large number of examples and ‘stories’ that teachers offered as evidence to support their viewpoint. Diarists in Schools 1, 3 and 6 believed that they had personally played a key role in fostering the children’s enthusiasm for literacy activities. They wrote of the higher levels of expectation they had of the children and the way in which they had made these expectations explicit to the children. As one wrote:

> The children’s achievements have come through from our high expectations of them and the fact that they know everyone is behind them pushing them on - we want them to do well. [School 6]

These diarists felt that it was important to make clear to the children that their achievements were ‘valued and appreciated’. They gave examples of ways they had built up children’s self esteem by, for example, displaying their work and ‘sending them round the school’ to show off their work and receive praise.

A theme that emerged from Schools 1, 3 and 6, which corroborated statements made in their interviews, was the belief that children were demonstrating an awareness of, and disposition to use the strategies they had been taught. Teachers claimed that children were becoming aware of these strategies because, not only were they encouraged to try them out for themselves, but also they saw adults demonstrating their use and talking about their importance. One diarist from School 3 summed up this viewpoint:

> They know what they are doing and why, and it’s because we are being much more explicit in our teaching.
They offered a range of evidence to support their claims, including the following quotations from children:

> I wrote hat and mat - see! Because they rhyme with cat, and I know it. [School 6]

> One boy was running round the classroom pointing to words on the wall and talking to himself. He was saying, ‘That’s a common word, and so is that, and so is that. I can read! I can read! I can read!’ [School 1]

While the majority wrote positively about the intervention’s impact on pupil motivation, statements directly related to children’s progress and achievement in literacy were mixed. The diarist from School 2 felt that ‘average and better children’ had made good progress with reading and most had made some progress in writing. However she stressed that ‘despite the intensive input’ a group had made ‘almost no progress.’ Comparing two ability groups in her class she writes, somewhat cryptically:

> Sharks now developing an interest in language. Killer Whales still not retaining info.

In the other three schools, while there was a consensus that involvement in the project had impacted positively on the majority of children’s progress and achievement, almost all writers echoed the view of the teacher from School 2 when they stressed that a group of children were still ‘not taking off.’

Diarists in Schools 1, 3 and 6 often focused on individual children’s experiences. What was striking about these entries was the sense of how well the teachers ‘knew’ their individual pupils. All the diarists had undertaken informal, on-going assessment of individual children’s progress. Interestingly, these assessments almost always arose as a result of, either an interaction with, or observation of, a child involved in a literacy activity rather than as the result of formal testing. Diarists were particularly interested in, what many referred to as, children’s ‘first time’ achievements.

**Teachers’ Emotional Response**

All diarists, at points, wrote in very emotional terms about the implementation of the intervention. This was a powerful theme that ran through all the diaries. Teachers expressed
'pleasure' when they observed children achieving success in their literacy endeavours; moreover, witnessing children's positive achievements clearly impacted positively on teachers' motivation and confidence. The following range of quotes, all from different diaries, demonstrate this strength of feeling:

Some of the children’s work is remarkable. They are taking great pride in their work. I am getting a lot of personal satisfaction. [School 1]

The enclosed piece of work was written by Hannah with no assistance at all. Her progress has been amazing. Fantastically exciting to teach these children. [School 1]

Very rewarding spending time with individual children and observing their progress. [School 6]

The fascinating interrelationship between children’s perceived progress and teachers’ feelings is demonstrated in these diary entries. And, indeed, contrasting emotions were noted when diarists thought that children were not making satisfactory progress in their literacy learning. Diarists wrote about feeling ‘very disappointed’, ‘worried’ and ‘upset.’ However, when things improved:

They have a bit more clue this week so I feel better. [School 1]

The highly emotional entries written by some teachers are striking. These include one from a diarist in School 3 who had observed one of her pupils spontaneously reading aloud from the overhead projector screen during the hymn practice. This teacher wrote that she ‘could have rushed out and kissed the child.’ Another detailed an occasion when her class had been tested on their letter knowledge. She described her reaction to one boy’s performance:

He knew every one he had been taught, and more. Great for him, and for me. This gave me a big lump in my throat. [School 1]

A striking theme, emerging from all diaries, was related to teachers’ feelings of anxiety and uncertainty during the initial phase of implementation. They wrote about feeling ‘worried,’ ‘anxious,’ or ‘concerned.’ However, by the end of the second term there was a notable lessening of anxiety. This might be explained by entries which suggested that many teachers believed that
the intervention was ‘paying off’ and that children were ‘making progress’. Also, it seemed that teachers felt more in control of what was happening in their classrooms. As one put it, ‘I feel back on top of it.’ Many appeared to have worked through the difficulties that had occurred during the early stages of implementation and had, as one wrote, ‘come up with ways round the problems.’ In this context, ‘managing’ the curriculum balance more effectively was a strategy that was mentioned frequently. Many wrote about making changes to the timetable; changing the organisation of the day; and making ‘better use of helpers.’

However, there were other causes of anxiety. Some worried that children would ‘forget everything in the holidays,’ and that some children ‘just weren’t catching on.’ One probationer teacher was ‘worried’ that the project recommendation for teaching writing conflicted with the advice from her teacher training. Referring to a colleague she writes:

She wants us to get the children to sound their words and then write independently. I am worried about this because it was not the done thing at college. [School 1]

Interestingly, two weeks later her diary entry indicates a modification to her beliefs:

I’m feeling a bit more confident about getting them to write. I’m not so hung up about it. The children really need this encouragement because a lot of them say, ‘Ah cannæ write,’ and so this will boost their confidence, along with mine.

Emerging from all the diaries was a theme connected with the pressure of having, as one teacher explained, ‘to try to fit all the other stuff in as well.’ Christmas seemed to bring particular pressures:

With approaching Christmas activities can we maintain reading time?...No! [School 3]

Due to pressure of nativity practices every day, I’m afraid most of the work was abandoned. [School 1]

However, as well as the fairly despondent comments about the pressures that teachers felt were ‘bearing down on them’, many entries suggested that diarists were able to keep on top of things by employing humour, and by adopting an imaginative approach to the demands they faced. The
following entry, with its extensive use of exclamation marks, gives a flavour of this and is described by the diarist as 'keeping everyone happy.'

Had to make a gift to present to Jesus (!) in church for end of term service. We made a jigsaw of coloured card and each child did a piece of independent writing on their bit of jigsaw!! They were very proud of what they had done and so was I!! [School 1]

Reflection

The extent of reflection was noteworthy and, while there was evidence of this in all the diaries, it was particularly striking in those from School 1 and 3. When class teachers stopped keeping their diaries most wrote a summary evaluation of their experiences. These were interesting because they revealed that diarists had reflected on previous entries and seemed to have gained some new understandings and fresh insights about their practice. The depth of the analysis varied considerably, however, it is important to highlight that the researcher had not requested these evaluations.

The following is an extract from the detailed final entry written by a diarist in School 1. This is a highly analytic entry and gives a clear sense of the author’s willingness, and ability to explore and problematise the key issues she identifies. It is important to quote at length from this diary entry to give the reader an authentic impression of this teacher’s thinking:

Teaching them the mere mechanics of reading and writing is not enough. They have to want to read and write and regard literacy as the most exciting experience. They have to love stories, be desperate to try mark making for themselves. They must be excited by everything we teach them. The love of their teacher in all they do is of paramount importance. Enthusiasm is so infectious. I really feel proud when I look through this diary of what we have achieved this year with the children. I think my ideas on literacy teaching have changed. I need to give this further thought and some research, but in 1992 I wrote an MA thesis on different methods of literacy teaching and came down firmly in defence of Frank Smith and against the role of learning phonics. That’s a massive simplification of 30,000 word thesis! However, I think I may have significantly revised my thoughts. I need to read it again and think again. I still stand by an awful lot of what Smith has to say, and I still believe that the teaching of phonics, key words and the use of reading schemes can be absolutely dire and uninspiring. However, I have learned that it is possible to teach such things in an interesting and enjoyable way. I think a lot of bad uninspiring, teaching of that sort has given it a poor reputation and I can understand peoples reluctance to return to that way of teaching. However, I think there is much to be gained from the good teaching of it. I still react strongly against a utilitarian, functional view of literacy, but have seen that it is possible to combine teaching the mechanics of literacy with giving children the power to express themselves, to explore, discover, create. That’s another thing...I never used to believe it was possible to be eclectic in the teaching of literacy. I think I was wrong. I think it may be possible to take the best from the 3 models of literacy teaching I identified and put
then together without compromising principles or disadvantaging ones teaching. I don’t know - as I said I need to re-read my previous theories and think hard. What I am certain about is that the quality of the teaching is far more significant in a child’s learning than the model of literacy adhered to.

She concludes this final diary entry by noting that she wanted her diary returned after the researcher had studied it, for ‘re-reading and reflection.’

Although less detailed, a range of comments which showed that teachers had been involved in reflection and had gained some insights about their practice were found in almost all the diaries. A diarist in School 1 felt that she was now more prepared ‘to go with the flow’ and ‘pick up’ on children’s interests. This was echoed in School 3 where a teacher felt that she was now ‘taking the lead’ more from the children, and that she was listening more to their comments.

The following are other examples of diarists reflecting and making sense of the experience:

My personal attitude to language has changed. Now I think it is the centre of the curriculum.
[School 1]

For me the thing that has been most valuable is having the freedom to explore the traditional as well as new strategies. [School 6].

A striking example of a teacher’s feelings of excitement when she was able to link a new aspect of her classroom practice to her knowledge of educational theory is worth quoting:

Loads of independent writing going on this week, children choose to come and sit with me so I can help them to hear sounds in the words that they want to write. On Friday something very exciting happened. Anne just picked up paper and a pen and went away by herself to write her story. Vygotsky in action!! Very exciting to witness. [School 1]

**Teacher Confidence and Self Esteem**

In Schools 1, 3 and 6 the theme of increased teacher ‘confidence and self esteem’ emerged. Teachers wrote about their involvement in the project as having been ‘very rewarding’, about ‘realising just how much we have achieved’ and experiencing ‘some great moments.’ One diarist summed up her feelings:
It has been one of the most satisfying teaching years of my career, the children have respond with enthusiasm and vigour. I think the satisfaction came from seeing all the children beginning to show an increasing awareness of print and their delight when they make sense of it or decode words or spell something out. [School 3]

A probationer teacher described the day when two teachers from another authority had visited her class:

They had heard that our literacy project was going really well. It felt like having a crit again. Apparently the two ladies were very impressed and rightly so. They were amazed that the children were so engrossed in Language activities. It is really nice when people compliment you, it really boosts your confidence and self esteem. [School 1]

This theme of increased confidence is also reflected in reports of teachers building on the work of the project and developing their own initiatives. For example in School 3, a classteacher had set up a Paired Reading scheme; teachers in School 1 and 3 had been invited to give talks to other school clusters and they included copies of their presentations. In Schools 1 and 6, teachers organised literacy workshops for parents and re-established links with the local library.

The unsolicited folios of children’s work submitted by teachers in Schools 1, 3, and 6 was another development initiated by participants. In the following extract a teacher explicitly states the criteria she had created to assist in her selection of children’s work for inclusion in the folio:

Examples of children’s writing included because:
- it was unprompted
- or it was an infrequent activity for that child
- or child had been motivated by someone or something else
- or it was a great effort by the children when other activities were available. [School 3]

**Classteacher Presentations**

During the second year of the project (see timeline in Chapter 2) three classteachers, representing Schools 1, 3 and 6, responded to a request for volunteers to deliver individual presentations about their experiences of implementing the intervention at the second cluster ‘Review Day. The three classteachers who volunteered had also been diary writers during the first year of the project. In terms of what Denzin (1978) describes as data and methodological triangulation, this offered the chance to use another source and method to study these three diary writers' perceptions, with the added advantage of it being another point in time.
In brief, during the presentations it was noteworthy that when referring to the first year of the project, the three presenters all made extensive use of the experiences documented in their diaries. In many cases, presenters used similar wording in their talk as they had used in their diary entries. In all three presentations, participants employed the strategy of revisiting an experience documented in their diaries, sometimes further developing their interpretation of events. There were examples of the presenters 'looking back with hindsight' on their experiences. A high level of reflection was evident in all three presentations.
Discussion

Most volunteers kept the diaries for three school terms. This offered a longitudinal dimension that helped to capture the process of implementation over the first year and went some way to opening, what has been referred to as, ‘the black box’ of change (Fullan, 1992a; Harris and Young, 2000). Analysis of diary data from Schools 1, 2, 3 and 6 allowed a close examination of the impact of the intervention on individual participants.

The analysis that follows is underpinned by two organising constructs. The first is a framework of multi-level impact and change; and the second is based on the similarities and differences found between diaries from the four schools represented in this data set.

Similar findings to those from the interviews emerged. However, analysis of the diary data also offered some deeper, more detailed insights about individual participants’ experiences, as well as some new findings that had not emerged in other data sets.

Level of Structures and Systems

Evidence gained from diaries both confirmed the range of changes at the level of structures and systems cited by teachers in the interviews, and provided new information about how these had impacted on participants.

The advantages and challenges associated with the introduction of working with others in the classroom were made much more explicit. Noteworthy, for example, were diarists’ beliefs about the crucial role they had played in supporting this key development. Many claimed to have co-ordinated and managed the work of the extra personnel who worked in their classrooms. A new finding was that many were responsible for ‘explaining about the intervention’ to new staff who joined the school. This had resulted in having to ‘put into words what they did’; and being ‘more explicit’ about their professional practice. This finding lends itself to the possibility that through articulating the process of intervention, and discussing the framework of the project with others who were novices, participants may have enhanced their own expertise and increased their sense of ownership of the initiative.
A new finding was that in these schools, at the outset of the project, there were few recommended resources. As time went on this difficulty was addressed, however, the importance of systems, such as appropriate resource allocation, being in place at the beginning of an initiative has been identified (Fullan, 1991; Day et al., 1998; Stoll and Myers, 1998). It is possible that this absence of materials may have added to teacher’s anxiety at the beginning of the initiative: a phase of the implementation that is already recognised as a difficult time for participants (Huberman and Miles, 1984; Fullan, 1992b).

**Teacher Level/Classroom Level**

Diaries offered an alternative source for studying classroom practice during the intervention. Huberman and Miles (1984) emphasise that it is important to discover whether any changes teachers make to their practice during an initiative correspond to those ‘that had been intended at the outset’. Analysis of the diary data supports teachers’ claims made during the interviews that they had adopted the majority of the project recommendations. In particular, changes to the approaches to teaching writing were almost unanimously welcomed and viewed as highly effective.

New insights about teachers’ experiences were also revealed. For example, there were many more references than in the interviews to children developing an understanding of analogies, rime and onset. Related to this was the frequent use of the verb ‘to click’ when describing children’s use of these in decoding. This phenomenon is highlighted by Harrison (1996) who identifies it as the expression used by teachers to describe the point when a child gains some independence in reading.

A striking feature of the intervention was the ‘dramatic’ increase in the frequency and time spent on reading activities, while this had been stressed in the interviews, the weekly diary entries revealed the extent of this development. Moreover, the data revealed a key finding not apparent from the interview data: diarists all claimed that the crucial advantage of extra personnel working in classrooms was that opportunities for children to have individual literacy instruction had been ‘markedly increased’. The efficacy of one-to-one tuition, particularly of reading is well documented (Allington, 1983; Clay, 1993; Hurry, 1996). Moreover, Wasik and Slavin (1993) argue that individual ‘cognitive and motivational’ processes are ‘activated’ in this situation and
that individual tuition can be particularly effective for children at risk of failing to read in the first year of schooling. These opportunities for one-to-one teaching had evolved during the implementation and were not planned for at the outset. This was a powerful example of how the dynamic of the initiative impacted at different levels and released new capacities and possibilities for systems which supported children’s literacy development.

Evidence of teacher reflection was found in many diaries. Participants offered, not just a record of the activities, but their interpretation of events. While the depth of reflection varied, there were many examples of teachers engaging with the initiative as they evaluated and problematised aspects of the implementation. There was a sense of participants working through the process and trying to make sense of their experiences. Many referred back to earlier diary entries and built on these comments. Some claimed to have altered beliefs or reached new understandings. The later presentations given by diarists from Schools 1, 3 and 6 offered powerful examples of this. They used experiences documented in their diaries in their talks and had clearly revisited and reinterpreted events.

Diaries from Schools 1, 3 and 6 offered examples of teachers identifying new links between practice and theory they had known of previously. Analysis of the data corroborated claims from their interviews that documenting the process of implementation had supported reflection. Analysis and interpretation were key features of the diaries. According to Pinnell and her colleagues (1994), more time is needed for teacher reflection and development during the change process involved in the implementation of literacy interventions. This has been identified as an important contributory factor to the success of a range of initiatives (Harris, 1997; Halsall, 1998; Hopkins and Joyce et al., 1999).

A striking feature of all the diaries was the strength of emotions reported. This theme had emerged from the interview data, but was stronger in the diaries; it is likely that this was a result of the method. Findings paralleled those from the interviews, in terms of teachers’ concerns about the impact of the intervention on the children in their classes: for all the diarists this was of paramount importance. Moreover, perceptions of whether this impact was positive or negative, then seemed to have a comparable emotional impact on teachers. Diarists spontaneously evaluated their record of events in terms of rewarding moments or frustrations and
disappointments. Again offering a very powerful sense of the ‘human dimension of change’ (Stoll, 1999).

Diarists in Schools 1, 3 and 6 reported increased levels of self-esteem and confidence, echoing claims made during their interviews. There was further corroboration of them ‘having the confidence’ to adapt the intervention strategies to meet the needs of individual children, and initiating new developments. Particularly strong feelings of positive self-esteem were identified amongst teachers in School I. The status given to their work from outside the school may have a bearing on this. These teachers had responded to requests to give talks to other clusters, and hosted visits by educators from other areas in Scotland. It may be that this explicit valuing of their work from outwith was empowering for staff and had contributed to what they viewed as ‘the cycle of success’.

The longitudinal dimension of the diaries offered further insights about the lessening of anxiety as the implementation stage progressed: a theme identified in the interview data. It seemed that participants worries and uncertainties decreased as they became more familiar with using the strategies, managed the implementation and observed some successes. This pattern of behaviour amongst participants in a change initiative has been identified in previous studies (Huberman and Miles, 1984; Fullan, 1992b).

Interestingly, diarists from all schools had initiated data collection. This included: folios of children’s writing; documented conversations with parents; and the number of books read by children. Some seemed to use their diaries as a research tool; they used their interpretation of the data to inform their teaching, and as evidence to support claims of children’s progress and development. Holly (1989:71) believes that keeping this type of journal allows the writer ‘to develop an educational archive which serves as an evolving database for gaining understanding and insights which inform and enrich professional judgement.’ The evidence strongly suggested that that some of the participants used their diary in this way and as such it also became a very powerful staff development tool.

These findings beg the question of what triggered this data collection. A possible explanation is found in the literature which points to the critical role data plays in terms of offering feedback to
those involved in an improvement initiative (Fullen, 1992; Hopkins and Harris, 1997). This seems to be closely linked to the finding that teachers’ main concern was for the children in their class and knowing whether the intervention had impacted positively on their literacy development. Put simply, as Stoll (1999) states, educators need to find out whether they have ‘made a difference.’

In all diaries, but particularly those from Schools 1, 3 and 6, teachers used ‘stories’ to illustrate what they saw as significant events and developments, or to exemplify an aspect of children’s learning. During the interviews a parallel ‘story telling culture’ had emerged where teachers utilised stories as they did in their diaries. An intriguing discovery was that practitioners used ‘stories’ to make sense of their own intuitive judgement and beliefs, and to accommodate new theories into their understandings. A powerful example of this was the teacher who told a ‘story’ to demonstrate a breakthrough in her thinking about Vygotsky’s theories of proximal development.

*Child Level*

Diarists in Schools 1, 3, and 6 reinforced claims from their interviews that children were demonstrating an awareness of, and disposition to use the strategies they had been taught. Teachers believed that by using these strategies children had experienced success and were now more confident ‘to have a go,’ at literacy activities. This had contributed to teachers’ increased expectations of children which, in turn, had impacted on children’s motivation, confidence and self esteem and that this was ‘all tied up’ with the ‘cycle of success.’ Their beliefs are well supported by the literature that identifies the concept of the ‘self fulfilling prophecy’ and highlights how teachers’ high or low expectations can impact upon children’s level of achievement and motivation (Louis and Miles, 1992; Mortimore, 1998; McCallum, 1999; Mortimore et al., 2000).
CHAPTER 8

THE IMPLEMENTATION PHASE

CHILDREN'S PERCEPTIONS OF THE READING AND WRITING PROCESS AND EXPERIENCES OF LITERACY LEARNING DURING THE INTERVENTION

A powerful theme emerged from three of the schools in the study. During interviews with classteachers and headteachers in Schools 1, 3 and 6 participants spontaneously offered comments about their particular perceptions of the intervention project’s impact on children, which were not mentioned in the other three schools (see Chapter 5 and 6).

In terms of the intervention’s impact on children, classteachers in Schools 1, 3 and 6 reported:

- that children were demonstrating an awareness of, and disposition to use, the reading and writing skills and strategies which had been taught
- that children were ‘making the link’ between what they were being taught and becoming readers and writers
- an increase in children’s motivation and self-initiated involvement in literacy learning.

Related to the above were particular claims about the intervention’s impact on their approach to literacy instruction. Classteachers in the three schools reported:

- using a more explicit approach to literacy teaching
- that they were trying to ensure that children understood the utility and importance of the strategies that were being taught
- having initiated strategies that were aimed at developing children’s metacognition in relation to literacy. These included encouraging ‘talk around literacy.’

In terms of the intervention’s impact on children, headteachers in these three schools claimed that:

- children were demonstrating a clear awareness of the strategies they had been taught
• children were making use of the strategies they had been taught
• more explicit and systematic teaching of literacy was the reason for this development.

These findings were striking and arguably too important to ignore. Consequently, the researcher made the decision to extend the study in a limited way to explore these unforeseen developments. As a means of testing the validity of the claims made by classteachers and headteachers in Schools 1, 3 and 6 the researcher decided to study the views of children attending these three schools.

Investigating children’s perceptions of the reading and writing process and their experiences of literacy learning during the intervention was not part of the original design of the study. However, from the start, the design had adopted a broad, more comprehensive approach to evaluation, with the aim of going some way to opening ‘the black box’ (Harris and Young 2000) of the process of implementation. The researcher felt that an exploration of these unexpected developments was worth pursuing in a limited way and was in keeping with the spirit of the inquiry. It is acknowledged that the preferred action would have been to gather data from children attending all six schools, however, this was not feasible because of time constraints.

It is important to state that at this point in the study there were other indications emerging from other data sets of notable differences in this group of three schools. These included the findings that classteachers were unified in their statements of enthusiasm for the project; the vast majority of the diary writers came from these three school; teachers described having a developing sense of ownership of the project recommendations; and they reported a deepening understanding of the theory underpinning the project recommendations. Classteachers in these three schools had also spontaneously expressed some confidence that the intervention was having a positive impact on attainment and progress. It will be shown in a later chapter, which offers a statistical analysis of children’s test scores, that cautious claims can be made about two of these three schools (Schools and 1 and 3) standing out in terms of the positive impact on children’s progress and attainment. The findings in this chapter may go some way to casting some additional light on this.
This part of the study was important on three levels. Firstly, at the methodological level: as is shown later in this chapter, a review of the literature suggests that one of the main reasons that studying children’s perceptions about literacy is problematic is that the techniques used to gather the data are inappropriate. This part of the study, therefore, offered a response to these findings with the development of a research method specifically designed to facilitate an exploration of young children’s perceptions about their literacy acquisition. The method proved to be a successful approach to gathering information about children’s perceptions of literacy.

Secondly, the data gathered in this part of the study is important as it offered a source of triangulation with which to test the validity of the particular claims made by classteachers and headteachers in Schools 1, 3 and 6 about the impact of the intervention on teaching and learning.

Thirdly, the data gathered provided valuable insights into children’s learning experiences during the implementation of the intervention. It offered a fascinating window into both their literacy behaviour and conceptual understanding. Unexpected themes emerged which seemed to contradict claims from earlier studies about children’s superficial understanding of the reading and writing process. The findings suggest that children were involved in developing metacognitive activity as they selected and discussed the strategies they were using; and as they talked through their developing conceptual models of the process of reading and writing. Some very tentative claims can be made that these finding cast some additional light on children’s attainment and progress. This is taken up in the discussion section at the end of this chapter.

**Researching Children’s Perceptions of the Reading and Writing Process**

There is a consensus amongst researchers that investigating young children’s perceptions in any area is problematic. The relative lack of children’s views featuring in educational research has been noted by many researchers including Lloyd-Smith and Tarr (2000:61) who claim that ‘a lack of confidence in methodological tools may in the past have been a deterrent to research focusing on children’s perceptions and interpretations of the world.’

Clearly the methods used to gain insights about adults perceptions are not suitable for children in the first two years of schooling. For example, standard interview technique may not be the best method to use with young children as it is possible that they may not have the language to
express what they want to say (Donaldson, 1978). In terms of investigating children's perceptions about the process of reading and writing, a lack of knowledge of specific vocabulary is likely to limit their understanding of what is being asked and their ability to describe what they are doing and thinking. For example, studies show that children are often confused about the meaning of basic terms such as ‘letter’ and ‘word’ (Reid, 1966; Clay, 1979).

Difficulties associated particularly with interviewing children about their perception of reading have been identified (Paris et al., 1988). One reason offered for this difficulty is that answering questions about hypothetical situations can be problematic for children (Garner, 1987). Early studies that sought to explore very young children’s perceptions of reading using interview methods tended to resort to asking question like: ‘What is reading?’ or ‘What do you do when you read?’ (Reid, 1966; Mason, 1967; Johns and Johns, 1971). According to Wray (1994) it is not surprising that children may not be able to respond clearly to abstract questions about reading. He suggests that this does not mean that they do not have any understanding of the process. He argues that many adults would also have difficulty answering the question ‘What is reading?’

Taking account of the widely acknowledged difficulties associated with trying to elicit children’s perceptions about literacy that are a true reflection of their understandings and abilities, it is therefore surprising that a review of the literature indicates that the majority of studies have, indeed, made use of the standard interview technique.

Moreover, in the main, findings from the studies that have used interviews to investigate young children’s knowledge and perceptions about reading claim to demonstrate young children’s lack of understanding and knowledge about the reading process (Weintraub and Denny, 1965; Reid, 1966; Downing, 1970; Johns and Ellis, 1976; Tovey, 1976; Myers and Paris, 1978; Johns, 1980; Mayfield, 1983; Wixson et al., 1984; Jacobs and Paris, 1987). Many of these studies report that children could not give a meaningful explanation of the reading process; that children indicated that it was the pictures not the print that were read; that little attention was given to getting meaning from text; and that an emphasis was placed on reading as a decoding process.
However, taking a closer look at the findings from just one of these studies highlights some of the difficulties that arise when using a standard interview technique to gather data about young children's perceptions. A widely quoted study conducted by Johns and Ellis in the United States (1976: 115), which explored Grades 1-8 children's concepts of reading, concludes that 'the vast majority of students have little or no understanding of the reading process.' Johns and Ellis offer this conclusion based on an interview that comprised three questions, the first of which was *What is reading?* It could be argued that the abstract nature of the question might have had some bearing on the responses offered by 69% of the sample, which are described by the researchers as 'essentially meaningless.'

Responses to the third question in the interview: *If someone didn't know how to read, what would you tell him/her that he/she would need to learn?* are classified by the researchers in five categories. Category 1 is described as 'No response, vague, circular, irrelevant or 'I don’t know' responses. The researchers state that this category included statements such as, ‘Ask your mom or dad,’ or ‘Tell him to go home and study the words in the glossary.’

It could be argued that based on what is known about the skills needed to become a fluent reader, and the conditions needed to foster this, responses that include recommendations that may be interpreted as developing a sight vocabulary; and gaining the support of family members, seem to be reasonable suggestions that merit further probing. However, clearly caution needs to be exercised in the analysis of children's responses so as not to overestimate their understandings, but underestimating what they know about the process should also be avoided.

In the light of what is known about the need to guard against presenting children with conceptual difficulties when trying to establish their understandings (Donaldson, 1978), the contexts used for exploring children's perceptions of literacy are likely to be of paramount importance. Contexts that are authentic and 'make sense' to young children, as opposed to contexts that are disembedded or abstract, may facilitate the process of gaining insight into what children know about the nature, purposes and process of reading and writing.
In recent times, the recognition that investigating children's perceptions is problematic has resulted in calls for researchers to consider developing 'innovatory methods' of social investigation that will help us further our understanding of children's perspectives about their world (Burgess, 2000).

**Methodology Used in the Study To Explore Children’s Perceptions of The Reading and Writing Process and their Learning Experiences**

Gaps in the literature pointed to the importance of developing an appropriate research method that would facilitate the exploration of young children’s perceptions and experiences in terms of their literacy acquisition.

With this in mind, the researcher drew on her experience of having taught young children in the development of a method to gather data. The aim was firstly, to create situations that made sense to the children and in which they would be motivated to respond. Secondly, to try to make best use of the contextually embedded nature of children’s understanding of literacy and put children in the position of demonstrating and verbalising what they knew, as well as what they believed a reader or writer needs to know.

**Design and Procedure**

Two approaches were used. The first was aimed at getting the children to think aloud and to discuss the strategies they used. However, they were not asked to talk about what they were doing while they were in the process of reading or writing a word because, as Paris and his colleagues (1988) point out, this can interrupt the process. Instead the children were questioned directly after they had written a word or read a word.

The second approach was to set up a play situation where the children pretended that they were teachers who were responsible for teaching younger children to read and write. In this approach, which will be referred to during this study as ‘Playing at Schools’, time was spent setting the scene, encouraging the children to describe their pupils and calling the children by their ‘teacher’ surnames Miss X or Mr Y.
The conversations took place in the classroom or in nearby open plan areas. All the children were willing to take part in discussion and to join in the ‘Playing at Schools’ activity. As a support, they were randomly grouped in pairs to take part in the activities. No time limit was set for the conversations and they lasted from ten to forty minutes. The conversation were taped and then transcribed.

In terms of the structure of the conversations only four key questions were planned. These questions were asked of all the children:

- How would you teach your class to read and write?
- Could you read and write in the nursery?
- What were you doing when you wrote that word?
- What were you doing when you read that word?

Apart from these key questions the conversations were allowed to develop in a natural way. Lewis and Lindsay (2000:195) suggest that ‘...the interviewer is a key component in the production of the child’s perspectives. Done well, the role is facilitative and non-intrusive.’ The researcher was using skills of having worked with this age group of children and it is likely that this experience was useful in terms of framing questions and responding in a way that was appropriate for their developmental stage. The researcher aimed to support children in following through their ideas and line of thinking. Importantly, every effort was made not to lead the children and much use was made of statements rather than questions. For example:

- repeating what the child said- So, you look at the first sound...
- stating an interest in hearing more- Tell me a bit more about that.
- using phatics- Uhuh.
- making brief personal comments- I understand.

Various strategies were used to improve the reliability and validity of the data gathered. During the discussion the four key questions were asked of all children and, whenever possible, these questions were asked more than once. Lewis and Lindsay (2000:194) argue that it is important
'to ensure that the information obtained is valid in that it represents the perspective of the child whether of a particular time, or a more permanent attitude.'

Because of the developmental stage of the children, it was necessary to ensure validity by checking any interpretations made against the child's views at the time (examples of how this was done during the natural development of the conversations with children are included in later sections of this chapter).

A criticism of verbal report data gathered from children is that they may be merely mimicking what they have heard others say (Garner, 1987). Because they may just be repeating a particular literacy strategy they have heard described, without understanding how to make use of it, Forrest-Presley and Waller (1984) argue that without further probing we run the risk of overestimating children's ability. In this study the aim was to increase internal validity by, whenever possible, involving the children in demonstrating their use of the strategies as well as gathering their descriptions of the processes in which they were involved.

While it was important to gather evidence to show that children could use the strategies they mentioned, findings which indicated that children could describe a strategy and viewed it as useful were also considered by the researcher to be noteworthy for children at this stage in their literacy development.

**Sample**

Thirty children were involved either in the last few weeks of their Primary One year or during the early weeks of the first term in Primary Two. The thirty children were selected at random from the three schools, coded 1, 3 and 6, where teachers had reported the findings discussed in the first section of this chapter. The sample consisted of five boys and five girls from each of the three schools. These children had all started school in August 1995 and had taken part in the intervention programme from its initiation.
Data Analysis

The overall framework for data analysis was underpinned by the need to check the validity of the headteachers' and classteachers' reports and the four key questions which were asked of all the children.

Three main categories arising from the above were created in advance. The three categories that made up the overall framework for data analysis were:

- Strategies discussed by the children
- Children's perceptions of, and explanations for, any differences in their literacy ability at nursery and primary school
- Children's concepts of reading and writing

However, importantly the sub-categories that came under these three main categories were not decided in advance. The aim was to allow the sub-categories to emerge from the data that fell into these three main categories. This decision was made because a review of the literature indicated that the knowledge base which underpins our understanding of children's concepts about literacy processes is clearly still at an early stage of development. Because of this the researcher felt that to a large extent it was crucial to allow themes and issues to emerge, rather than imposing any pre-conceived ideas on what would come out of the conversations. By adopting this approach, whereby the sub-categories were derived from the data, the aim was to include everything that was in the responses (Munn and Drever, 1996).

Transcripts of the conversations from Schools 1, 3 and 6 were studied and the data examined. The preliminary analysis included classifying statements made by children according to the three main categories mentioned above. The second stage involved summarising and tabulating the data under these main categories. This facilitated the formulation of the related sub-categories that emerged. Data was organised using these sub-categories and a summary table of these was created under each major category. The findings were then described and analysed.

While a qualitative, interpretative approach underpinned the framework used for the analysis of data, it was important also to use a straightforward quantitative approach. Therefore a straight
count of children in each school who made reference to different categories was made so as to get an overall feel for the frequency that each category was mentioned (see Appendix 10, Tables 1-3).

Scrutiny of the frequencies across the three schools shows that the number of children who made comments that fell into the various categories was very similar. Therefore the decision was take to report the findings in terms of the group of schools, rather than reporting findings from individual schools.

In reporting the data, the researcher believed that it was important to include both a wide range of quotations from the transcripts, and also some extended excerpts of talk. The rationale for this was, firstly, to allow the children's voices to be heard. Secondly, it was important to give examples of what the researcher said during the conversations in order to validate the findings. In transcribing the children's talk the researcher made every attempt to accurately report the Scottish dialect that was used by many of the children and was a strong feature of the rhythm of their speech.

**Conversations with Children**

*Category: Strategies Discussed*

Appendix 10, Table 1.

The children suggested a range of strategies that they believed a beginner reader or writer should learn about. They also demonstrated their own use of these strategies while involved in literacy activities. The strategies discussed by the children fell into the following sub-categories.

- Learning Letters/Sounds/the Alphabet
- Using Letters/Sounds/the Alphabet
- Practising
- Copying
- Reading and Writing at Home
- Learning the Common Words
- Writing Stories
- Listening to Stories/Being Read To
• Asking for Help
• Looking at the Pictures

Sub-category: Learning Letters Sounds/the Alphabet
This was the strategy mentioned by the second highest number of children. Over two thirds of the children believed that it would help their ‘pupils’ to learn to read and write if the ‘pupils’ were taught letters and sounds. Typical responses from the children were:

I’d say, ‘Now look at the alphabet over there and we’ll learn the sounds.
I would tell him the sound and I would read it to him, and then I would say you read it.

Many children recommended that their ‘pupils’ should be taught the alphabet. Singing the ‘Alphabet Song’ was a frequently mentioned strategy for learning the names of letters. Many believed that: ‘It makes you remember.’ One child gave a reason which perhaps mirrored her own experience. She said:

At the start, right, the wee yins will think it’s just a song, but it’s the alphabet really, and they’ll ken that later.

Many referred to the importance of learning the names of the letters as well as the sounds of the letters. When asked why she felt that this was important, one child confidently asserted:

Well, what’s the point of knowing the sound if you don’t know the name?

Teaching the letter names was a recommendation from the intervention and according to the majority of teachers was a new addition to practice at Primary One and Two.

Sub-category: Using Letters/Sounds/the Alphabet
This was the strategy mentioned by the highest number of children. The descriptions offered differed from merely learning letters, sounds and the alphabet: the focus here was on making use of the knowledge. They referred to active involvement by the children in the process of reading or writing. Many, not only gave hypothetical explanations of how they would personally use their knowledge (mainly of letter sounds), but were also able to demonstrate the process in action. During the ‘Playing at Schools’ game many detailed the advice they would give to their
‘pupils.’ During the play children moved in and out of role during the conversations, sometimes talking as ‘the teacher’ and sometimes referring directly to personal experiences.

The following excerpts are typical of the children’s views on the active involvement required in making use of letters and sounds.

I’d say what does it start with and what’s the middle letter. I’d help them sound it out.

Child: Ye have tae spell it oot. Ye go like A B C D [makes the sounds of the letters] and then ye pit them the gither. Then they’ll get it.
Researcher: Show me how you do it. [Points to a word]

A child describing how she had written the word flower said:

So it, right, you go through the alphabet, right. Then you hear the word. Then, and, if you think about the word and you stop at ‘i’ then you write ‘f’.

Many children used very similar phrases in their responses. It is likely that these phrases reflected those used by their classteachers during literacy instruction.

**Sub-category: Practising**

Over two thirds of the children highlighted the importance of ‘practice’ for the development of literacy skills. There was a considerable degree of consensus that if you wanted to ‘get better’ at reading and writing you had to ‘do it a lot.’ Many offered detailed descriptions of the organisational plan in their class for taking their reading book home ‘every night’ so that they could ‘practice’. As one child explained:

Ye need tae dae it every night and every day, but at the weekends...Pause... I sometimes dae it on the mornings at the weekend.

The importance of practising is highlighted in the following conversation. This excerpt also illustrates the way in which the interviewer acted as a facilitator in drawing the children back to talking about literacy when they digressed from the subject.

Child: You need to read lots of books to be a good reader.
Books were seen as the main resource needed for practising reading skills and many of the children talked explicitly about the need for their pupils to have access to ‘lots of books.’ Some children mentioned having access to both the school and public libraries:

I’d take them loads to the library and get them to choose a book and get everyone to try a book every time. I’d get everyone to choose a book and try and read it themselves. And we’d go loads of times to the library.

The previous comment made during the ‘Playing at Schools’ game also illustrates the way in which the need for active participation, again, came through strongly in the children’s responses about how to ensure that their pupils learned to read and write.

Some thought that involving their ‘pupils’ in an ERIC time activity (an acronym for Everyone Reading In Class) was a good idea. They described this as an opportunity ‘to read books quietly,’ or as one child put it, ‘you just have to whisper in your head’.

Still on the subject of access to books, another child who discussed the importance of reading ‘lots of books’ and ‘practising lots’, when probed further offered the following thoughtful example from her own experience.

Researcher: So do you think that everybody can learn to read and write?
Child: Well, no everybody, but some people can.
Researcher: Who might not be able to learn to read and write?
Child: Well, in Bosnia, you know how we sent them some stuff, and they havnae got books, and so they willnae be able to read and write.

Moreover, some children seemed to indicate that they believed that reading books could also impact on writing skills. One said:

Researcher: So Mr Thomson, what else might help the little ones in your class to be really good at reading?
Child: They can read lots of books. Read twenty books in a week and do your work fast.
Researcher: Why should they read lots of books?
Child: So ye ken how to read and write because the words ye read help ye to write.

A statement made by another child was particularly interesting:

You have to read more and more books so that you can keep on reading and you’ll know the words more often.

Although in the last part of the statement the sense is not clear, it may be that he is trying to describe the importance of practice in terms of coming back to the same words again and again. Or, he may have been putting forward the viewpoint that regular involvement in the process of reading will lead to a higher level of word accuracy in that ‘you’ll know the words more often.’ However, further probing did not establish the validity of either of these interpretations as the child digressed from the subject and became involved in another aspect of the play.

Sub-category: Copying

Around two thirds of children suggested copying as a strategy to help with spelling words and they either mentioned using this strategy themselves, or in the context of teaching it to their ‘pupils’. They talked mainly about using resources that were specifically designed for the purpose of copying, referring to resources such as ‘dictionaries’, ‘word posters’ and ‘word books’.

Many, when probed further went voluntarily to get their personal dictionary or wordbook. One child talked the researcher through the process. Opening her dictionary at the page with words beginning with D, she said:
Right, see, that's all D's [uses the sound of the letter]. And you...see that's... DOG [points to the word] and then you copy that in your story.

Many pointed to displays of the Common Words and said that these words could be copied. A few suggested that copying words from books was a strategy that could be employed to progress both reading and writing skills. As one explained:

Because there's writing inside the books and you could copy them out and then you could try and read them.

Interestingly, one child seemed to express some concerns about the passive nature of copying. She began by suggesting that asking 'your mum' when 'stuck' with how to write a word was a good strategy to use, but then changed her opinion saying:

But if you just keep on asking your Mum then you willnae be able to ken how to write words, and when you're bigger you willnae ken how to write a lot of words either.

Encouraging children to copy words was part of the intervention's recommendations for teaching writing, which also included teacher scribing, and independent writing.

Sub-category: Reading and Writing at Home

Almost two thirds of the children spontaneously identified involvement in reading and writing activities at home as an important strategy. Many made reference to homework and indicated that it was important to 'do it'. There were frequent references 'to getting it signed' to confirm that someone had 'heard' their reading. Some suggested that that this did not always happen. During a conversation between two of the children about the importance of being heard at home, one said pointedly:

Aye if they get their reading when they took their book hame.

As well as citing homework set by the classteacher, a few believed that involvement in self initiated activities at home was beneficial. The following comment reflects this viewpoint:

You need to go home and try and write all the time.
Many, who spoke about home activities, spontaneously highlighted the central role played by their mothers in promoting the development of literacy skills. In terms of an approach to help their ‘pupils,’ phrases like ‘get their mum to help them’ were often used. The following extract is particularly interesting in that there is some indication both of the benefits of knowing something about reading before coming to school, and the role that ‘mum’ could play in this.

Researcher: Now Miss Carter and Mr Jones you want to teach your P1 children to read and write. What will be the most important thing that you will do?
First child: Ye can ask their mums to learn them to read before they come to school and so they’ll get a little bit and then they can learn loads mair at school.

Another child’s comments offered a fascinating insight about his perceptions of his mother’s role in monitoring his reading development:

Child’s: My mum can read by herself...[pause]...but she wants me to read
Researcher: Why?
Child: So that she knows that I can read. So that she knows I can do it properly.

Sub-category: Learning the Common words

Learning the high frequency ‘Common Words’ was spontaneously identified as a useful strategy by over half the sample of children. The majority when probed to elaborate on what they perceived to be the importance of these words were able to do so, as the following conversation demonstrates:

Child: I would gie them words that gie them a help. A page of words like we’ve got twenty-five words to ken
Researcher: Really? You’ve got to learn twenty-five words?
Child: And I’ve got two words the day: a pink word and a white word. The white one’s the twenty-five words. Emma’s got twenty-five words enawe.
Researcher: What do you call these words?
Child: The twenty-five common words.
Researcher: What does that mean?
Child: I dinnae ken
[Researcher and child both laugh]
Researcher: Sorry that was silly question, what I meant to ask you was why would you teach the wee ones in your class these words?
Child: Because sometimes you have them in lots of books.

This conversation also demonstrates the importance of the role played by the interviewer when trying to establish children’s understandings. In this case, had the conversation stopped after the
first probe question, a true picture of the child’s understanding would not have been presented. However, the researcher realised that the abstract nature of the question ‘What does that mean?’ had presented the child with conceptual difficulties and so then asked a probe question that was embedded in the ‘Playing at School’ game- a context that clearly ‘made sense’ to the child.

Other children described the benefits of learning these words. They perceived them to be useful because, as one child said, ‘they’re everywhere.’ And others said:

Because you use them all the time even when you’re speaking.

Actually, I can find common words in the paper. I looked at my dad’s paper last night and I saw four of them right away.

**Sub-category: Writing Stories**

While ‘Playing at Schools’ around a third of the children mentioned ‘writing stories’ as a strategy that would help their ‘pupils’ learn to read and write. As two children suggested:

I’d tell them to write down in their storybook what they’ve been doing at the weekend.

I’d get them to write about ‘my best dream’ and aw that.

Another child, who was perhaps drawing on his own experience suggested that the ‘pupils’ make a rhyme book of stories and put it in the class library so that all the children could look at it and read it. This notion of using their own work as a reading resource was mentioned by a few children. One explained that her teacher had put the class’s stories in a big book and that she sometimes read it to them.

**Sub-category: Listening to stories/Being read to**

Ensuring that their ‘pupils’ listened to lots of stories and were read lots of books was cited by a third of the children as an important strategy. Many, speaking in role as the classteacher, made statements like: ‘I would read to them every morning,’ or ‘I’d read them lots of books every day.’ Being read to at home by family members was also mentioned. One boy who said he would read ‘loads of books’ to his pupils, spontaneously described a scenario that would provide a large amount of resources for this purpose:
In terms of assessing validity and reliability of the children's views, many of the children mentioned, more than once during the conversations that they believed that being read to was a useful strategy.

**Sub-category: Asking For Help**

A third of the children believed that asking someone for help was a good idea. The range of people mentioned included, the teacher, a friend and family members. However, many believed that this should be a last resort and that 'you have to try'. Asking for help was never offered as the first or only suggestion. As one child said:

> Only sometimes we get really stuck and you have to say to Miss X and then she'll come over and help you.

Another suggested:

> You should look at the wall because the word you're looking for might be there and then you don't need to ask her.

**Sub-category: Looking at the pictures**

Only a few of the children suggested that looking at the pictures would be a useful strategy to teach their 'pupils'. In almost all these cases they also mentioned other reading strategies that they would teach their 'pupils'.

**Category: Children's Perceptions of, and Explanations for any Differences in their Literacy Ability at Nursery and Primary School.**

Appendix 10, Table 2

Almost all the children offered their reflections on their nursery experience. The data in this category was particularly rich as children tended to be very willing to discuss aspects of their nursery experience and recount their 'memories'. Again, the consensus amongst the children in
terms of the key points they mentioned was noteworthy. Statements fell into the following sub-cATEGORIES:

- Age and Expectations
- Different Functions of Nursery and Primary School
- Learning/Having Been Taught
- Play and Work
- Knowledge of Letters Sounds and the Alphabet

**Sub-category: Age and Expectations**

The most frequently offered explanation for the difference in literacy ability at the primary and nursery stages was connected with age. Most believed that 'being older' accounted for their increased expertise in reading and writing. When asked to elaborate on why they felt that they had not been able to read and write in the nursery a typical response was:

We were just wee in the nursery.

Interestingly, age five is mentioned over and over again. They clearly viewed becoming five years old as a potentially important landmark in their literacy development. Their responses seemed to indicate that being younger than five years old explained their inability to read and write. Their comments also pointed to the high expectations that many had about being able to learn to read and write when they reached the age of five. It seems likely that they associated this age with beginning school. The following statements give a flavour of their beliefs:

I can write 'cause I'm big 'cause I'm five.

I was only four I couldn't spell at nursery, but now I'm five.

Cause we're at school we learn cause we're five.

Some had very clear expectations that as they progressed through school and went into 'a bigger class' their literacy skills would get 'better and better'. However, one child voiced some anxiety about the future saying:

I hope I dinnae end up stupid like my brother.
When in role as the teacher some of the children described the progress that they expected their 'pupils' to make with the reading scheme books used in their schools. Fascinatingly, some seemed to have worked out the colour coding used to differentiate levels of reading difficulty in these schemes. Children animatedly talked the researcher through the order that their 'pupils' would be expected to read the books. Interestingly, a later check showed that the children had memorised the order of books they had read and also worked out the colour coding of the books that would come next in the scheme.

**Sub-category: Different Functions of Nursery and Primary School**

The second most frequently offered explanation for the difference in literacy ability at the primary and nursery stages was related to what many perceived to be the separate functions of nursery and primary school. The children who offered this opinion viewed the two establishments as being distinct and they frequently made use of phrases like 'they're different' or 'they're no the same.' The believed that children were not taught to read and write in nursery. Nursery was seen as a place where 'you just play,' 'get your snack or your dinner' and, as some said 'you learn to be good'. A feeling of nursery having more of a laissez-faire approach came over in many of their statements. As one said:

> They dinnae have a bell when yer gaun oot tae play. They just open the doors and everybody runs oot.

Nursery Teachers were seen as performing different roles from that of class teachers. In the following conversation one child articulates this viewpoint:

<table>
<thead>
<tr>
<th>Researcher:</th>
<th>So, why can you read and write now, but as you said you couldn't when you were in the nursery school?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child:</td>
<td>Because they were jist nursery teachers. The school is the school. Miss X is a teacher. But they were only nursery teachers.</td>
</tr>
<tr>
<td>Researcher:</td>
<td>Yes, I see.</td>
</tr>
<tr>
<td>Child:</td>
<td>They're different because... eh... they don't teach people at nursery school, and they don't teach ye how to write. They only teach ye to be good at nursery.</td>
</tr>
</tbody>
</table>

**Sub-category: Learning/Having been taught**

Almost two thirds made statements that suggested that the progress they had made in the acquisition of literacy skills was as a direct result of having been taught or of learning. The next
conversation with two children demonstrates the way in which the researcher attempted to increase the validity of the data by repeating questions, asking new questions and making statements that encouraged children to articulate their beliefs.

Researcher: Could you read and write when you were in nursery school?
First Child: No.
Second Child: A little bit.
Researcher: Can you read and write now?
First Child: Yes.
Researcher: Why do you think you can read and write now but you couldn’t do it when you were in nursery school?
First Child: Cause ye dinnae get teached in nursery. Ye jist play aboot in nursery.
Second Child: Ye draw and aw that.
Researcher: What else
First Child: Cause ye dinnae write and... em... ye dinnae get books like Biff, Chip and Kipper. [Characters from a reading scheme used in the school.]
Researcher: But there are books at nursery school, aren’t there?
First Child: Aye, but ye jist look at the pages in nursery. Ye dinnae ken what to say.
Researcher: So what do you do now when you look at a page?
First Child: We can read it, because Miss X helps us to read books.
Researcher: So why do you think you can read now but you couldn’t when you were at nursery?
First Child: Because I’m older.
Second Child: Because we teacht how to read books at school.
Researcher: You get taught how to read books.
First Child: Because when you go in a higher class you get harder things.

As well as citing the importance of having been taught since starting school, many also spoke about their experience of ‘learning.’ The common viewpoint was that they had started to learn about reading and writing when they came to school, and that in nursery they had not been involved in any such learning. This viewpoint is well represented by two children who, when asked to expand on why they felt that they were unable to read and write in the nursery replied:

First child: Because we never, ever learnt to write words.
Second child: Because we were so wee when we were in the nursery. We were not that old and we weren’t really learning to read and write.

**Sub-category: Play and Work**

When offering explanations for the changes in their literacy ability about half set their explanations in the context of ‘work’ and ‘play’. Much use was made of these words and there was agreement that learning was closely associated with ‘work’ rather than ‘play.’ One child’s comment sums up this view:
Child: You learn things at school.
Researcher: I see. How do you know when you are learning?
Child: Because you work.

And another said:

In nursery ye dinnae get learnin’ ‘cause ye jist play. ‘Cause ye dinnae get onything until yer mum’s been in, or granny or grandad’s picked ye up.

The latter statement is interesting in that there is some suggestion that the child believes that being with family members offers a different experience from being at nursery. It is not clear what she means by ‘onything.’ However, in the context of her response it may refer to learning.

These children indicated that they viewed the lack of work, and the emphasis on play, as a reason for their inability to read and write at the nursery stage. This view was repeatedly stated by half of the children and is summed up by the following conversation:

<table>
<thead>
<tr>
<th>Researcher:</th>
<th>Could you read and write at nursery?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child:</td>
<td>No.</td>
</tr>
<tr>
<td>Researcher:</td>
<td>Why not?</td>
</tr>
<tr>
<td>Child:</td>
<td>They didn’t give you work.</td>
</tr>
<tr>
<td>Researcher:</td>
<td>So what did you do at nursery?</td>
</tr>
<tr>
<td>Child:</td>
<td>Play most of the time.</td>
</tr>
</tbody>
</table>

**Sub-category: Knowledge of Letters Sounds and the Alphabet**

Having knowledge of letters, sounds or the alphabet was cited by almost half of the children as a reason for their increased skills in reading and writing. They pointed out that at nursery school they didn’t have this knowledge and almost all the children who referred to this made an explicit connection between this lack of knowledge and their inability at that time to read and write. The following conversation with two boys illustrates this. They also offer a range of other reasons for their progress at school:

<table>
<thead>
<tr>
<th>Researcher:</th>
<th>Could you write stories when you were in the nursery?</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Child:</td>
<td>No! Not in the nursery! We were just wee boys!</td>
</tr>
<tr>
<td>Second Child:</td>
<td>We couldn’t talk right.</td>
</tr>
<tr>
<td>First Child:</td>
<td>We didn’t know the alphabet.</td>
</tr>
<tr>
<td>Second Child:</td>
<td>We do now. When you are saying words your lips take off the word.</td>
</tr>
<tr>
<td>First Child:</td>
<td>Schools bigger.</td>
</tr>
</tbody>
</table>
Second Child: We didn’t get work at the nursery you just choose. It’s a longer playtime. You go out any time.

Researcher: Any other reasons why you can write now?

First Child: Cause we’re at school and we learn cause we’re 5.

Second Child: We’re better at writing and we’re better at reading.

First Child: We know the alphabet. A B C D E F ...

[Both begin to say the alphabet over and over again.]

Category: Children’s Concepts of Reading and Writing

Appendix 10 Table 3

It seemed that many of the children had some conceptual understanding about the nature and importance of literacy. Some of their understandings were fairly accurate, others were incomplete, or in a few cases, clearly wrong. The children’s statements fell into the following sub-categories:

- Thinking/Using Your Brain
- Role of the Teacher
- Reading/Writing Connection
- Importance of Being Able to Read and Write
- Developing a Sight Vocabulary
- Automatic Written Representation

Sub-category: Thinking/Using your Brain

When describing their involvement in the process of reading or writing, over two thirds of the children spontaneously used phrases that included the words ‘think’ or ‘brain’ or ‘try.’ Noteworthy, were the similarities in the children’s perceptions of the processes involved:

Sometimes when I want to write a word I use my brain to sound it. If I don’t know a word I would think in my brain to see if I can sound it out in my head. I just think and just know what to say.

Your brain thinks and your eyes look at the words.

Fascinatingly, four of the children believed that as they wrote a word the letters they were using came from their brains, into their mouths, and, as one put it, then ‘fell out’ onto the page. One child talked the researcher through what she felt was happening as she wrote the word monster. Her description was particularly interesting because as she reached the end of her account the
tone of her voice and her facial expression seemed to indicate that she had made a new discovery in terms of the writing process:

I think monster is coming out of my mouth...Pause... It's, it's, it's coming out of my mouth. When I write it all the letters are there, and they are coming out... Pause... But, I think maybe they come out silent.

Some children took part in extended conversations about their view of the importance of thinking and using your brain when involved in reading and writing activities. It seemed that children were developing quite complex theories about literacy acquisition. Some of these theories were fairly accurate, some were incomplete or, in a few cases, clearly wrong. The following extract from an extended conversation with a child offers a fascinating insight into his thinking. The conversation was about what was happening when one of the children had written the word *flower*.

---

Child: I know - you were using your brain.
Researcher: Do you need to use your brain when you are writing?
Child: Yes
Researcher: Why?
Child: Because if you didn't use your brain you wouldn't know what to write.
Researcher: What do you think happens in your brain when you are writing?
Child: It tells you the things you want to write. [Long Pause]
Researcher: Is your brain different from your tummy?
Children: [All laugh]. Yes!
Researcher: What is the difference between your brain and your tummy?
Child: Your brain is grey and your tummy has got bones and blood and your heart.
Researcher: I see. So what do you use your brain for?
Child: To think.
Researcher: To think, and you said earlier that you used it when you were writing?
Child: Yes.
Researcher: How do you think your brain works?
Child: I don't know.
Researcher: [laughs] I don't either. But you said that when Jane was writing that word 'flower', she was using her brain. Can you tell me what was happening in her brain?
Child: She was thinking about the letters in it.
Researcher: The sounds or the names?
Child: The sounds and the names.
Researcher: And could she hear them?
Child: No.
Researcher: Ah - so what was she doing?
Child: Your brain records your words.
Researcher: Can you explain that a little bit to me?
Child: Your brain records the word that...I forgot...if somebody asks me something and I'm in the middle of talking, I can remember the words what my brain is
recording and if I'm talking and playing games and then my pal says something, my brain will still be recording.

Researcher: So when your pal says something, your brain is recording these words?
Child: Recording my words when I'm saying something.
Researcher: Sorry, recording your words when you say something? Is that what you meant?
Child: Nods.
Researcher: And how does that help you with reading and writing?
*Child: When you're writing I think of the words and sounds and my brain records them, and when you're reading your brain asks for the word and then your brain tries to work them out and your brain records it.
Researcher: I see. Have you thought about this before?
Child: When I was four.
Researcher: Could read and write when you were four years old?
Child: No, I could write but I couldn't read.

It is important not to overestimate this child's understanding of the process, however the third last statement * is intriguing in that it may suggest, firstly his developing understanding of the interactive nature of reading and writing, and secondly that he has some notion of accessing words that are stored in his word memory bank. Further data related to this concept of building up a mental lexicon of sight words is presented in a later section.

**Sub-category: Role of the Teacher**

Over two thirds viewed the role played by the teacher as being pivotal to their developing ability in reading and writing. As one child put it, 'you need to have a teacher.' The children believed that they required 'help' in learning to read and write, and that the teacher provided this. There was a consensus that the teacher was someone who had more knowledge than the children about reading and writing and could therefore support the children's literacy development. They described how the teacher would work alongside a child who was trying to read a word:

She [the teacher] said 'Just spell it out' and then she cut... she hid a wee bit of the word, and I spelt it oot. Then I read another bit, then I pit it together, and then I read it.

Well, the teacher could start off the first letter, and she could tell them the next letter and they could sound the word if the teacher told them the first bit.

Another child, in role as the teacher, said:

If they were writing something and they didn't know how to write it, I would say, like, a wee bit of the word first, and then they could sound it out.
The teachers in the preceding examples were clearly seen to play a key role in helping the children to break down the task into smaller units that could then be built up.

The management and organisation of literacy provision was identified. Children indicated that they believed the teacher was 'in charge' of this. Many who mentioned this, described the resources that the teacher offered them that gave them 'a help'. This included putting 'words they needed' in their dictionaries or round the room; sending reading books home to enable them to practice with 'their mum'; and giving them plastic letters so they could 'learn the sounds'.

Many children had a clear understanding of the organisational structure that underpinned the weekly reading sessions, and the order in which reading books were issued. As on said:

She would start them off with wee books and then the books would get bigger and bigger and the words would get wee-er and wee-er.

One child explained the complex system for 'doing reading' in her class:

Just say Linda and Carol do it on Monday, and then they'll do it on Wednesday and then they’ll do it on Friday and then they’ll bring it [reading book] back on Monday. But they wouldn’t do reading on Monday, they would do it on Tuesday and then on Thursday

Interestingly some of the children seemed to suggest that they were aware that their teachers were experiencing time pressures. For example, one child described how she would hear her 'pupils' read in groups rather than individually because the latter 'would take longer' and another child explained to the researcher that her teacher had only 'heard' one group reading that morning. She said:

She only managed to do one group, which is our group, because she's not had very much time.

One child offered an educational reason for hearing her children's reading in groups. She felt that on a one-to-one basis the teacher would 'be helping them all the time with it.' Whereas, in a group situation, her comments seemed to suggest that the children would be more actively involved in the learning:

Researcher: So in the group is it good for the teacher or good for the children?
Child: Good for the children.
Researcher: Why is it good for the children?
Child: Because they would learn a lot mair, and they would ken how they are answering the answers. They would learn a lot mair to the children 'cause they're telling the teacher the answers, and the teacher's asking the children, so the children would learn a lot mair.

Sub-category: Reading/Writing Connection.
Over two thirds of the children made statements which suggested that they saw connections between the processes of learning to read and write. Some felt that learning to write would assist their 'pupils' in learning to read and some, on the other hand, felt that learning to write would help their 'pupils' learn to read. Others clearly viewed it as more of an interactive process. The following comments give a flavour of these beliefs:

If ye cannae read ye cannae write, because if you don't try to read then you won't know how to write
You need to write 'cause if you could wrote you could read.

When the children were asked what they thought they had been able to do first, almost all said that they could write first. Some said that they could write when they were at nursery school and there was a general feeling that writing was easier.

Sub-category: Importance of Being Able to Read and Write
Half of the children indicated that they viewed the ability to read and write as 'important.' Many spontaneously offered a range of reasons to support this opinion. Some believed that reading was important in terms of personal growth because it 'makes you clever 'or 'helps you learn things'. Other children cited future benefits. All the references to the future could be classified under two headings. The first of these related to future employment:

If you were a president and you wanted to do a speech or something, and tell the whole country something, and you had to read a piece of paper, then you wouldn't know what to say.
It is important to write because when you got to work you have to write a lot of things.

Statements that fell under the second heading were all made by girls and were connected with what they believed would be an aspect of their future role as mothers. These girls saw
themselves helping their own children to read and write. The following comment sums up this belief and, interestingly, also points to the role of the teacher - a theme that will be discussed later in this chapter:

If you can't spell you wouldn't know how to help your little girl and you would have to say to them, Oh we didn't have a teacher.

Sub-category: Developing a Sight Vocabulary

Over a third of the children made comments that suggested that they recognised a difference in the way that they read certain words. When asked to explain how they had read a particular word the children offered two categories of response. The first focused on strategies that were associated with 'sounding out,' the second could be described as sight word reading. This clear distinction in their perceptions of the process was apparent from their comments. The following are typical:

Researcher: So tell me why you think you don't have to sound out these words?
Child 1: Because we already know them. We just remember.
Child 2: These are easy words. I was looking. I didn't hear.

The children frequently used the word 'remember'. Interestingly, a few children also indicated that when they read certain words, as one put it, 'you don't need to think you just know'. When asked to tell the researcher some words that would fit into this category, most were able to give a list of words. When they were then asked to read the words they had mentioned, most of them read all the words successfully. Many of the words featured on the list of Common Words issued as part of a project and others were the Key Words from their reading schemes.

Sub-category: Automatic Written Representation

A few seemed to indicate that they were aware that there were certain words that they did not have 'to sound out' when they wrote them. They believed that some words 'you just know' how to write. The conversation that follows is an example of a child with a clear sense of this. It also demonstrates that he is aware of other strategies that he can draw on when attempting to spell a word:

Researcher: What do you do if you can't spell a word?
Child: I go over and get the word.
Researcher: But what if it's not there?
Child: I think about it and then I do it. I try and hear it in my head. When I'm thinking about the word and then I hear it.
Researcher: [Pointing to a word that he has already written correctly.] How did you write that word?
Child: I didn't think or listen 'cause I already know it.

Researcher: Can you tell me some words that you don't have to think about?
Child: I know how to spell mum and dad and Ryan. I don't have to think or hear. I remember them.
Researcher: Could you do this in the nursery?
Child: No, I can now 'cause I'm in school.
Researcher: What's different about school?
Child: You don't learn sounds or the alphabet in nursery, but you do at school.

An interesting feature about this child's theory about why he can write these words automatically is that while he rejected the notion that he has to 'hear' because of the fact that he already knows it, he then goes on to suggest that the ability to spell the words automatically is a result of the alphabet knowledge he has acquired since entering school.

In the next conversation another child offers a similar theory to explain his ability to write some words automatically. Importantly, in his last comment he demonstrates an awareness that he can move in and out of this stage. He knows that sometimes he fails to 'remember' and writing the word is not always automatic. Nevertheless, he demonstrates that he has a range of other learned strategies that he can utilise.

Researcher: What was the first word that you ever wrote?
Child: I done my name and I tried my pal's name and I done it.
Researcher: Do you think that learning the alphabet helped you with writing?
Child: Aye, cause that's where you get all the sounds.
Researcher: Do you need sounds?
Child: Aye sometimes.
Researcher: When do you not need them?
Child: When I remember, but then sometimes I forget, and I just go and get the sound, or look for it. If the word's not there, I have to get it from my teacher.

Another child who had been explaining to the researcher how she had written a word by 'going through the alphabet' and 'listening to the letters' as she wrote, was asked to write a word that she didn't have to do that for. This is the conversation that followed:

Researcher: Now you write me a word that you don't have to go through the alphabet for.
Child: Can it be a big long word?
Researcher: It can be any word at all.
Child: [Writes 'went']
Researcher: Now, did you have to go through the alphabet for that?
Child: No.
Researcher: Why not?
Child: Because you could spell it oot. Because it's an easy word, because it's got 'ent.'
Researcher: Are there a lot of words that end in 'ent'?
Child: 'Went' and 'sent' and I can spell them too.

This child offered a different reason for the ease with which she wrote this word. She drew the researcher's attention to the rime spelling in the word. Developing rime and analogy was one of the recommendations from the intervention programme.
Discussion

The methodology developed for gathering information about children's perceptions about their literacy learning during the intervention strongly facilitated the process of gaining insight into what children knew about the nature, purposes and process of reading and writing. Setting the data gathering in contexts that were authentic and that made sense to the children seemed to engage their interest and support their thinking and responses. This approach, where the focus was on encouraging extended conversations around literacy activities, offered a richness of data that allowed the 'children's voices' to be heard, rather than merely reported by their teachers. The use of the 'Playing at Schools' method where children adopted the role of the teacher was particularly effective. The quality and complexity of data gathered from this context seemed to confirm Vygotsky's belief that:

In play a child always behaves beyond his average age, above his daily behaviour; in play it is as though he were a head taller than himself (1978:102).

The findings demonstrate the paramount importance of selecting an appropriate method to use in data collection. The evidence from this investigation lends itself to the possibility that a range of earlier studies that have claimed to demonstrate children's lack of understanding and knowledge about literacy may have been based on data gathered by investigative methods that were inappropriate for the age of the participants (see for example: Downing, 1970; Johns and Ellis, 1976; Tovey, 1976; Mayfield, 1983; Wixson et al., 1984).

The next part of this discussion examines firstly, the evidence emerging from the conversations with children that seemed to corroborate claims made by headteachers and classteachers in Schools 1, 3 and 6. Secondly, children's experiences of literacy learning during the implementation phase are explored, and their perspectives about the reading and writing process are examined. Thirdly, unexpected themes that emerged, which seemed to contradict claims from earlier studies about children's superficial understanding of the process, are discussed. Finally, it is suggested that the findings in this chapter may go some way to casting some additional light on the attainment and progress made by children during the intervention.

The evidence emerging from these conversations with children offer some triangulation of teachers' reports of changes to their practices, as well as substantiating, to an extent, their views.
about the interventions impact on children’s literacy behaviour. A range of findings appeared to support participants’ beliefs that many children were making the link between the skills and strategies they had been taught and becoming readers and writers. It is worth noting the similarity between the strategies children discussed and used, and the recommendations from the intervention programme that teachers reported having taught. As the classteachers had argued, there was a strong suggestion that children were developing a sense of the utility of the various strategies and skills. The case of the child who recommended learning the Common Words because ‘you use them all the time’ was a typical example of this.

Paris and his colleagues (1991) consider that children are more likely to use a strategy if they see it as useful and teachers have explained that is. They also argue that successful intervention programmes must not only provide knowledge about strategies, but also the motivation to use them by convincing students that they could control the effectiveness of these strategies. In this study there were examples of children applying the strategies they had been taught; beginning to work out which was the most appropriate approach; and using different ways to work out how to read or write words. These young children were at the early stages of their literacy development and did not have the range of strategies of older children. However, they were beginning to make use of the toolbox of strategies they had available.

Findings from other data sets in the study indicated that teachers in these three schools believed that as result of their involvement in the intervention they were being more explicit in their teaching of literacy. These claims were supported by spontaneous comments made by their headteachers. Both groups of participants saw this as a change to practice and identified it as a key development. The importance of using an explicit approach to teaching strategies that are intended to support children’s development as readers and writers has been stressed in earlier work (Paris, Cross and Lipson, 1984; Duffy et al., 1986; Garner, 1990; Wray, 1994). The classteachers in School 1, 3 and 6 claimed that they were supporting children by offering explicit guidance. They claimed to have modelled the strategies they were trying to teach; talked to children about what they were doing while involved in the processes of reading and writing; as well as emphasising the utility of the various strategies. The findings that emerged during the conversations with children can be used, with some caution, to support their teachers’ claims that
children had experienced an explicit approach to literacy teaching and that the reasons why they were learning the strategies had been made transparent to them.

Classteachers in Schools 1, 3 and 6 claimed to have initiated strategies that were aimed at developing children's metacognition. Associated with this were reports of an increased focus on teacher/pupil talk around literacy. Teachers claimed that they had encouraged the children to talk about the strategies they used and to articulate their reasons for selecting certain strategies. There were examples from the data of children successfully doing this. Moreover, as the children talked through the processes to the researcher there were indications that they had internalised the voice of the more knowledgeable person, in this case the teacher (Vygotsky, 1978).

Fascinatingly, there was evidence of children utilising the social interaction with peers and the researcher, which took place during the data collection, to further support their conceptual development and structure their thinking about literacy. This strongly supports the argument posited about the intellectual purpose that talk serves for young children (Vygotsky, 1962; Tizard and Hughes, 1984; Wood, 1988) and the importance that their interactions with others have for their construction of knowledge (Wells et al., 1990).

Analysis of the data suggests that children were involved in metacognitive activity as they selected and discussed the strategies they were using; and as they talked through their developing conceptual models of the process of reading and writing. These findings highlight the metacognitive development of the children who, it could be argued, were developing an 'awareness of themselves as active agents in knowing' (Brown, 1980).

The crucial role that appeared to be played by 'talk' in these three schools was an important finding. Talk seemed to have been used to encourage children's metacognitive understanding of the reading and writing process, and, importantly, also as a way of assessing the children's understandings. Evidence from all the data sets gathered from classteachers revealed that they often used examples of children's talk to illustrate a point about progress or attainment in literacy. Perhaps this is the kind of assessment evidence that makes most sense to teachers and is of most use to them. Bennet points out that talk is indeed a powerful assessment tool because it is through talk that we create 'a window into the child's mind,' and so gain insights about the
child's understanding (1992:22). And, it is through careful listening that teachers can 'learn about children's thinking' (Hall and Martello, 1996:vi). The evidence from this study suggests that talking with, and listening to children are important ways of discovering their existing perceptions of the literacy process, and their understanding of how and when to use particular strategies.

As Ausubel (1968) famously said:

> the most single important factor influencing learning is what the learner already knows.
Ascertain this and teach him accordingly.

This may be particularly pertinent advice for teachers of children who are at the early stages of learning to read and write. Making every effort to both accurately assess the children's existing understandings and provide appropriately differentiated instruction and experiences, are potentially key strategies to use in supporting their literacy development. While this may prove to be a challenging undertaking in a large infant class, evidence emerging from other data sets in this study show that the redeployment of staff and the recruitment of volunteers, if managed effectively, can be used to support class teachers in their provision of more individualised, small group literacy instruction.

Teachers in these three schools believed that there had been an increase in children's motivation and involvement in literacy learning. The importance of the active participation of children learning to become literate has been identified (Jacobs and Paris, 1987). The findings from this investigation suggest that these children had been encouraged to 'have a go' and show that many children saw the benefits of 'trying' for oneself. Possibly one of the most intriguing findings was the importance the children placed on the need to use your brain and think when involved in literacy activities. There was evidence of children, beginning to grapple with ideas; developing theories about literacy acquisition; and demonstrating an awareness that learning to read and write was complex and challenging. The metacognitive process of 'thinking about thinking' (Jacobs and Paris, 1987) is apparent in their accounts. Children associated their literacy learning with work as opposed to play and their comments indicated that they viewed it as a serious business.
Other findings that strengthen teachers’ claims that children were active participants in the process of becoming literate came from the discovery that many had some understanding and ownership of the systems and structures that underpinned the literacy teaching in their classes. For example, they offered detailed descriptions of the complex systems of organisation associated with progress through reading schemes, as well as outlining the timetable for ‘hearing reading’ in school and at home. Many children also seemed to understand the pivotal role that their teacher played in the management and organisation of literacy learning for the whole class. Interestingly, children’s comments about their teacher ‘daein aw that hersel’ and having ‘nae time’ confirmed the classteachers’ claims of being subject to pressure of time.

Unexpected themes emerged that seemed to contradict studies (detailed at the start of this chapter) which conclude that young children are unable to give meaningful explanations about the literacy process. Findings from this study suggest that the children had a developing understanding of the purpose of their literacy instruction and the benefits of learning to read and write. A key argument from the earlier studies is that beginner readers and writers view the process as being merely about decoding and encoding. This is offered as evidence that they have metacognitive deficits, particularly in reading (Baker and Brown, 1984). However, while the children in this study did place a strong emphasis on the importance of learning the alphabetic system, many also had a deeper understanding of the purpose of their instruction. They offered real life examples to illustrate the purpose of literacy and these examples demonstrated their consensus that it was a powerful and worthwhile tool to have. Many looked to the future and predicted the importance of being able to read and write in terms of their later working life or becoming a ‘clever person’. Fascinatingly, girls in the study stressed they would need literacy skills when they became mothers in order to support their own children’s literacy development.

The findings from this study are consistent with other research which shows that children view the encoding and decoding process as highly important. What is perhaps worth exploring further, is why these earlier studies seemed to conclude that this suggests that young children have only a superficial understanding of the process and purposes associated with reading and writing. It has already been argued that the methodology used in past studies to gather data may well not have elicited perceptions that were a true reflection of children’s understandings and abilities. Also, surely it is hardly surprising that children who are at the early stages of learning
to read and write should perceive the decoding and encoding processes to be central to the nature of the task. The majority of children in the study viewed their developing alphabetic knowledge as crucially interlinked to the reading and writing process. Arguably, coming to understand that cracking the alphabet code is a key to gaining access to the world of literacy is a major step for children during this complex and challenging learning experience. Moreover, it is recognised that understanding the alphabetic system does involve a high level of conceptual reasoning (Vernon, 1971; Adams, 1990).

Forrest-Pressley and Waller (1984) are two of the few researchers who discuss metacognition in literacy in terms of decoding. They argue that metacognitive awareness has been mainly linked to comprehension and other higher order literacy skills. Findings from this study offer examples of children making, what these researchers refer to as, ‘strategic use of the available decoding skills (1984: 22). Moreover, there were examples of children who were developing some awareness of the thought processes they were involved in while undertaking literacy activities, and who were able to tell the researcher about them. These finding support the conclusion that children were involved in the early stages of metacognitive activity associated with literacy, as they demonstrated ‘reportable, conscious awareness about cognitive aspects of thinking’ (Jacob and Paris, 1987:258). There are very few studies that have investigated the metacognition of beginner literacy learners (for recent small-scale studies see Brenna, 1995; Juliebo, et al., 1998) most tend to focus on older children’s metacognitive awareness. (For example: Paris and Oka, 1981; Paris and Jacobs, 1984; Duffy et al., 1986.)

The finding in this study that young children were actively involved in trying to make sense of their literacy instruction and were clearly capable of understanding the utility of strategies points to the importance in future intervention projects of a greater emphasis being placed on harnessing the metacognitive capability of the young children involved.

Turning now to the children’s perceptions of the role of the adult, analysis of the data confirmed what is already known about the importance of significant adults in children’s literacy development (Teale and Sulzby, 1986). However, what is noteworthy in this study is that the children themselves spontaneously discussed the importance of adults and it seemed that they held relatively clear views about the role adults played in supporting their literacy development.
The roles played by two key figures emerged: firstly, the children made frequent mentions about interactions with the teacher and, secondly, the support offered by their mother.

In terms of the teacher’s role, the children recognised that she was more skilled and they frequently offered examples of what they could do with her help. Some of the explanations offered by the children revealed that they were aware that their teachers were scaffolding their literacy learning (Wood et al., 1976; Bruner, 1979) as they tried to read or write a word. Children gave descriptions about how teachers encouraged and supported them in their attempts to read and write, often by breaking the task down into smaller units. Many of the children’s accounts could clearly be analysed in terms of Vygotsky’s (1978) theory of the zone of proximal development: they were aware of the gap between what they could do alone and what they were able to achieve with the support of their teacher. Children were less specific about the particular actions taken by their mother. They believed she viewed learning to read and write as being very important and saw her as someone to whom they could turn for help whenever they needed.

A powerful finding from the study was that many of the children had started school with high expectations of learning to read and write. Many spontaneously identified a special connection between ‘being five’, the transition from nursery to school, and their acquisition of literacy skills. Interestingly, this finding corroborated the views of the majority of their classteachers who believed that in the first years of schooling learning to read and write was of paramount importance to the children themselves. These findings mirror that of previous work that has pointed to the high expectations of becoming literate that children, regardless of social class, have on starting school (Entwisle and Hayduk, 1982; Slavin et al., 1992; Slavin and Madden, 1993). The findings are also in accordance with earlier studies that have highlighted the importance of the first years of school in supporting children to achieve this goal (Pederson et al., 1978; Meyer, 1984).

These results strongly suggest that the thrust of early intervention initiatives should be to harness children’s positive expectations and motivation for the task, and to support children in realising their goal of becoming literate in the first years of schooling. It could be argued that the finding that many children held the strong belief that they would successfully acquire literacy skills was a powerful base for teaching and learning.
Interestingly, it will be shown in Chapter 9, which offers a statistical analysis of children's test scores, that Schools 1 and 3 and 6 were ranked as the top three schools, respectively, in terms of average progress made by children over the first year of intervention on entry to Primary 1 through entry to Primary 2.

Moreover, cautious claims can be made about Schools and 1 and 3 standing out, particularly, in terms of progress and positive impact on children's attainment.

Notably, Schools 1 and 3 were ranked as the top two schools in terms of average progress made by children over both the first year of intervention on entry to Primary 1 through entry to Primary 2; and then longitudinally, over three years, from entry to Primary 1 through entry to Primary 4.

These were also the only two schools where the longitudinal attainment data pointed to superior performance by intervention children three years on from the start of the study. In terms of the longitudinal attainment data it may be that the significant positive impact on literacy attainment during the first year of schooling is an important factor in explaining the statistically significant gains in attainment three years on in these two schools. Put simply, the significantly better start in their literacy learning that the intervention children made, compared to the controls, might explain the significantly better follow-through literacy attainment of intervention children on entry to Primary 4.

While no causal claims can be made, and there is clearly much more research needed in this area, it is interesting to note the range of differences that emerged from the data explored in this chapter. The findings discussed may go some way to casting some additional light on the differential pattern of literacy test data gathered in the study.
CHAPTER 9

THE IMPLEMENTATION AND CONTINUATION PHASE

CHILDREN'S LITERACY ATTAINMENT AND PROGRESS

Design

A range of data were gathered to facilitate two main areas of investigation:

Investigation 1: A comparison of the attainment of the intervention children with a similar group of control children in terms of their performance on a battery of literacy tests.

Investigation 2: An examination of the factors affecting attainment and progress in literacy made by pupils at first follow-up (after one year of intervention) and at second follow-up (three years from the start of the intervention).

The designs of both the above investigations were similar in that they were longitudinal with repeated measures; however, there were also clear differences in the designs. These differences are discussed in the sections relating to each area of investigation. The results of each analysis are documented separately. The findings from both areas under investigation are explored in the discussion section at the end of the chapter.

Measures and Procedure

All the children in the study were assessed on a battery of measures. The tests used were:

7. The Burt Word Reading Test (SCRE, 1976)

This test consists of 110 words printed on a test card and graded in approximate order of difficulty. The test was administered individually and the children were asked to read as many words as they could at their own speed. They continued until they had attempted and failed at least 10 consecutive words; it was then presumed that the remainder were too difficult for them, but they were allowed to look ahead and pick out any other words they thought they could read. From the total number of words, which they spontaneously pronounced without error, their reading ages could be calculated using the norms provided.
It is argued that the test has a high degree of reliability and while the test does not claim to assess fluency or comprehension, it produces scores which correlate well with other measures of reading ability (SCRE, 1976).

The standardisation is based on a study of a representative group of 2000 Scottish Primary school children. In terms of this study there were clear advantages in using a test that had been standardised using a Scottish population; and, being standardised, it offered the possibility of comparison with broadly established norms.

The Burt Word Reading test is administered individually and when dealing with a large sample, which was the case in this study, it has the practical advantage of not taking too long to administer, normally around 10 minutes. In terms of disadvantages: firstly, it is rather insensitive for children with low reading ability and secondly, is not suitable for use with Primary 1 children.


This is an unstandardised test developed specifically for the study. It was designed to provide information about the children’s alphabetic knowledge; letter identification is known to be a powerful predictor of subsequent progress in reading (Tizard et al; 1988; Riley, 1996).

This test was administered individually. The children were asked to identify the twenty-six letters of the alphabet, either by name or by sound. The letters, printed on cards, were presented to the children one at a time in non-alphabetical order. The children were shown the letter in both its upper and lower case form; they had only to identify the letter in one form to score. One point was awarded for each correct response with the maximum score being 26 points.

3. The Burt Inglis Spelling Test (n.d.)

This test consists of 100 words printed on a test card and graded in approximate order of difficulty. The test was administered to a group of between 4-6 children. The children were asked to write down, paying attention to spelling, as many words as they could from the list read out by the tester. The tester said the word, followed by an example sentence and further repetition of the word. Individual children in the group were allowed to continue until they had attempted and failed at least 10 consecutive words; it was then presumed that the
remainder were too difficult for them. From the total number of words, which they could spell without error, their spelling age could be immediately calculated using the norms provided. There was no time limit for the test.

The Burt Inglis Spelling test is not quick to administer, however, when dealing with a large sample, as was the case in this study, it has the practical advantage of being administered in a group and it is quick and simple to mark. As a standardised test it offers the possibility of comparison with broadly established norms.

One criterion used for the selection of tests was that the test should have a numerical outcome. This was necessary for the strands of Investigation 2 which explored children’s progress in literacy: when studying progress the dependent variable in the analysis must be a numerical outcome.

Table 9.1: Pearson Correlations between the literacy measures

<table>
<thead>
<tr>
<th></th>
<th>1 Burt Word Reading</th>
<th>2 Burt Inglis Spelling</th>
<th>3 Alphabet</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Burt Word Reading</td>
<td></td>
<td>0.90***</td>
<td>0.56**</td>
</tr>
<tr>
<td>2 Burt Inglis</td>
<td></td>
<td></td>
<td>0.61**</td>
</tr>
</tbody>
</table>

** p<0.01

Table 9.1 shows there was a strong to medium level of association (Sapsford and Jupp, 1996) between the different measures used. This is indicated by the size of the correlations all found to be statistically significant.

A team that comprised the researcher, learning support teachers, and an undergraduate student administered the tests. Before the assessment of the children began, testers took part in training sessions where issues associated with administration were discussed. In order to increase the validity of the data gathered from the assessment, testers had the opportunity to work in pairs and to observe each other administering tests to children who were not included in the study. During these sessions issues related to consistency of approach were addressed.
Data analysis

All data gathered were entered into SPSS 6.1 and analysed using this programme. An Alpha level of 0.05 was used for all statistical analyses. As well as children’s scores on assessments of reading, spelling and alphabetic knowledge, other input data on pupils and schools were gathered and entered into SPSS 6.1 so as to allow analysis of relationships between variables.

The variables used in the two areas of investigation were drawn from the following:

Pupil level
- gender
- age
- free meal entitlement
- primary class
- school attended
- attendance at nursery
- age on entry to school
- Burt Word Reading test score
- Burt Inglis spelling test score
- Alphabet test score

School level
- Individual school
- School group: based on percentage of pupils with FME attending the school

Investigation 1: A comparison of the intervention children with a similar group of control children.

This area of investigation compared the intervention children, in terms of their performance on a battery of literacy tests, with a similar group of control children who had not taken part in the intervention. When studying the impact of the intervention on the sample as a whole, the preferred design would have involved comparing the performance of a sample of children who attended the cluster of six schools taking part in the intervention, with the performance of children from a cluster of six schools not involved in the intervention.
However, two main difficulties prevented a comparison of children's literacy performance using the above design. Firstly, it was not possible to find a local authority cluster of six schools that had exactly the same pupil and school characteristics to act as a comparison. The second difficulty was that at the time when this study was being implemented, schools throughout the authority were starting to dip into a range of the strategies that were incorporated in the particular programme of intervention used in this study.

At school level the best way to compare intervention and control children would have been to randomly select children to be in an intervention group or a non-intervention group. However, again, this preferred design presented a series of difficulties. Firstly, the headteachers from the six schools that had opted to take part in this study were in agreement that they wanted to raise the literacy attainment of all their pupils. All six schools taking part in the study had identified children's low attainment in literacy as a major concern and had identified this as the key target for development in their individual school, and cluster development plans. Ethical issues would, therefore, have arisen had only some children taken part in the early intervention programme.

Moreover, Sylva and Hurry (1995) highlight a problem that they claim often occurs in educational research when experimental and control children from the same school are compared. They argue:

Where the intervention is likely to have an effect on the school's general approach to some curriculum area, which is not uncommonly the case, not only the Experimental group will be affected but the Control group also. (p. 26)

Clearly this argument applied in terms of the whole-school approach to intervention which was implemented in this study.

Consequently, after considering the options available the researcher decided to use the pre-test measures of children's literacy attainment, gathered pre-intervention at the start of school session 1995, as a form of control. These data were then compared with data gathered one year later, at the start of school session 1996, from children who had by then experienced one year's intervention. This meant, for example, that the mean Burt Word Reading Test score for the cohort of children entering Primary 2 in 1995, before the intervention project had begun, could be compared with the mean Burt Word Reading Test
score of the cohort of children entering Primary 2 in 1996 who had experienced one year of involvement in the intervention programme.

This design has been used in other studies when the intervention programme under scrutiny has adopted a whole-class or whole-school approach (see for example, McMillan, 1995; 1996).

It is important to highlight that before adopting this design, care was taken to establish that it was reasonable to believe that the cohort of children attending the study schools in 1995 would be similar to the cohort attending the study schools in 1996. Bechhofer and Paterson (2000) argue that this approach to matching, where the 'natural demographics do the matching for you is the best.' As a test of the similarity of the control and intervention group they were compared in terms of a range of key characteristics. These were, children's average ages; attendance at nursery school; free meal entitlement; and gender (Appendix 11, Tables 1-4). Statistical analyses revealed no significant differences between the control and the intervention group in terms of any of these characteristics.

A further range of strategies was employed to establish the validity of the assumption that the cohorts of children attending the study schools in 1995 and 1996 would be similar. Headteachers were asked to indicate from their communications with the education, planning and housing departments of the local authority any significant changes at pupil, school or neighbourhood level that were planned or that they could predict. The consensus in the group was that 'no change' was foreseen in the forthcoming school session.

As a further test, after the first year of the study, the headteachers were asked to indicate whether they could identify any major changes that had taken place, other than those that they associated with the implementation of the intervention, at pupil, school or class level. They answered in the negative. Secondly, the total Free Meal Entitlement (FME) figures for the schools were studied and it is evident from Table 9.8 (Page 247) that there were no significant changes in the levels. Finally, the planning and housing department of the local authority were contacted to establish whether there had been any significant changes to occupancy during the period of intervention. No major changes were reported or documented: the picture emerged of a fairly static population (E.D.I., 2001).
Participants

Data collected spanned four year groups (Primary 1-4). The whole sample in the study numbered 897. This included 123, Primary 1 children tested in 1995 who were part of Investigation 2 (see Table 9.14).

Table 9.2 shows the number of Primary 2, 3 and 4 control and intervention children assessed on a battery of measures. The two cohorts of intervention children for whom data were gathered are differentiated in the following way. The Primary 2-4 children who were tested in 1996 after one year of involvement in the intervention are referred to from now on as (96) intervention; and the Primary 4 group tested three years after the start of the intervention are referred to as (98) intervention. The control group of Primary 2-4 children are referred to as the (95) control group from now on.

Table 9.2: Number of children in the sample: Primary 2 - 4

<table>
<thead>
<tr>
<th>Class</th>
<th>(95) Control</th>
<th>(96) Intervention</th>
<th>(98) Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>117</td>
<td>136</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>99</td>
<td>115</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>119</td>
<td>95</td>
<td>93</td>
</tr>
<tr>
<td>Total</td>
<td>335</td>
<td>346</td>
<td>93</td>
</tr>
</tbody>
</table>

For the (95) control group, the aim was to include 20 children at each of the Primary 2, 3 and 4 stages from each of the six schools in the study. The children were randomly chosen on the basis of selecting every second name appearing on the class register. However, in Schools 1, 3 and 5, it was not possible to follow these selection procedures precisely as the total number of children in certain classes was less than twenty. In these schools all the children from certain primary stages had to be included.

The (96) intervention group was selected in the same way. However, in each school there were one or two children who had joined the school during the course of the first year of the intervention project; they were not included in the sample as it was important that only children who had experienced the intervention from the start were tested. In certain classes the number tested is under twenty. This was because of sustained absence over the test period or the class role was less than twenty.
In a few cases the number for each stage exceeds twenty. This was because of an administrative error, which resulted in more children than the number stipulated being tested, in certain classes. The researcher took the decision to retain all who were tested in the data analysis.

The (98) intervention group comprised only children who had attended one of the six cluster schools since the start of the study. The aim of this part of the study was to explore the longitudinal impact of the intervention, therefore only the scores of the children who had attended a school for the three years of the study where obtained. This was an important part of the study as a review of the literature shows that there are few follow-up studies to investigate the long lasting effects of early intervention.

**Results**

*Investigation 1*

In this investigation the literacy performance of children who took part in the intervention project was compared with the literacy performance of a control group of children who had not.

The analysis used measures of pupils’ literacy attainment taken at the beginning of the school year. For example, Primary 2 scores are the results of tests administered at the start of the Primary 2 school year; the children taking these tests had, therefore, completed one year of schooling.

In order to gain a deeper insight into the impact of the intervention, different frameworks were used to compare the intervention and the control groups. This section examines the impact of the intervention on:

1. The cluster of six schools
2. The individual schools in the sample
3. The sample divided into two groups according to SES: children attending School Group 1 (higher FME) or School Group 2 (lower FME).
1. **The cluster of six schools**

This investigation concerns all the children across the cluster of six schools tested at each of the Primary 2, 3 and 4 stages. The results discussed below compare the performance of the intervention group and the control group across the cluster of six schools, at these primary stages.

Table 9.3 presents the results of the Burt Word Reading test (BRT) administered across the cluster at Primary 2, 3 and 4. At the Primary 2 stage an independent t-test showed that performance by the (96) intervention group and the (95) control group, on the Burt Word Reading test was significantly different in favour of the intervention group \((t (237.79) = -3.16, p<0.01)\).

At the Primary 3 stage on the Burt Word Reading test (Table 9.3) while the difference in the scores of the (96) intervention group and the (95) control group was not significant, there was a trend towards significance in favour of the intervention group \((t (212) = -1.92, p=0.056)\).

Table 9.3: Burt Word Reading Test (BRT) Scores Across the cluster: all six schools in the study

<table>
<thead>
<tr>
<th>Class</th>
<th>(95) Control</th>
<th>(96) Intervention</th>
<th>Comparison of (95) Control and (96) Intervention Mean Scores p value</th>
<th>(98) Intervention</th>
<th>Comparison of (95) Control and (98) Intervention Mean Scores p value</th>
<th>Comparison of (96) Intervention and (98) Intervention Mean Scores p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2</td>
<td>4.87</td>
<td>8.16</td>
<td></td>
<td>p&lt;0.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(117)</td>
<td>(116)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P3</td>
<td>19.4</td>
<td>16.9</td>
<td></td>
<td>p=0.056</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(99)</td>
<td>(115)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P4</td>
<td>36.19</td>
<td>19.34</td>
<td></td>
<td>NS</td>
<td></td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>(119)</td>
<td>(119)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 9.4 shows that in terms of the Primary 3 children’s Burt Inglis Spelling test (BI) scores, while the mean score of the intervention group was higher than that of the control, this effect did not reach statistical significance \((t (210) = -1.58, NS)\). The missing BI spelling test data for children entering Primary 2 in 1995 in all tables in Investigation 1 is explained because this was not part of the original design of the study. The level of the BI test was considered by the researcher and school staff to be well beyond the capabilities of the
children and therefore inappropriate. However, after one year of intervention classteachers requested that the children entering Primary 2 in 1996 be tested on BI spelling. This data was subsequently used in the longitudinal follow-up in Investigation 2.

Table 9.4: Comparison of Control and Intervention Mean Burt Inglis Spelling Test (BI) Scores Across the cluster: All six schools in the study.

<table>
<thead>
<tr>
<th>Class</th>
<th>(95) Control Mean</th>
<th>SD</th>
<th>(96) Intervention Mean</th>
<th>SD</th>
<th>Comparison of (95) Control and (96) Intervention Mean Scores p value</th>
<th>(98) Intervention Mean</th>
<th>SD</th>
<th>Comparison of (95) Control and (96) Intervention Mean Scores p value</th>
<th>Comparison of (96) Intervention and (98) Intervention Mean Scores p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2</td>
<td>Note</td>
<td></td>
<td>6.95</td>
<td>7.78</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>P3</td>
<td>13.69</td>
<td>9.24</td>
<td>15.60</td>
<td>8.41</td>
<td>NS</td>
<td>-</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>P4</td>
<td>23.03</td>
<td>11.63</td>
<td>25.23</td>
<td>9.61</td>
<td>NS</td>
<td>24.07</td>
<td>11.73</td>
<td>NS</td>
<td>NS</td>
</tr>
</tbody>
</table>

Note 1: See preceding paragraph.

At the Primary 4 stage (Table 9.3) the mean score of the (96) intervention group was higher than that of the (95) control group on the Burt Word Reading test. However, this difference did not reach the level of statistical significance (t (212)=-1.22, NS).

At the Primary 4 stage the (96) intervention group’s Burt Inglis Spelling test scores (Table 9.4), were not found to be significantly different from those of the controls (t (211)=-1.48, NS).

In terms of the longitudinal data gathered across the six schools at the Primary 4 stage, a comparison of both the Burt Word Reading and the Burt Inglis Spelling scores of the (98) intervention group with those of the (96) intervention and the (95) control groups, revealed that there was no significant difference in the performance of the (98) intervention group. There are few intervention studies that provide follow-up data; therefore, this is an important finding. It is consistent with the literature reviewed that highlights the tendency of intervention initiatives not to have long lasting effects on attainment (Becker and Gersten, 1982; Natriello, et al., 1990).
This finding is noteworthy because, while there was a positive impact at the Primary 2 stage on the Burt Word Reading test scores of the (96) intervention children, two years on it was seen that the Primary 4 (98) intervention children were not performing significantly differently from the Primary 4 (95) controls. There was no evidence of any long lasting effects of the significant gains made by the Primary 2 (96) intervention children, found in the follow-up data of the Primary 4 (98) intervention group. However, in a later section of this chapter the discussion will return to the long-term impact of the intervention when the results of individual schools are analysed. It will be shown that in two of the study schools there was evidence to suggest that early statistically significant gains in reading at Primary 2 may have had lasting effects.

Table 9.5 presents the results of the Alphabet test administered across the Primary classes 2, 3 and 4 in all six schools in the study. It shows a pattern of significantly better performance by the (96) intervention group across Primary 2 and 3 year groups. On entry to Primary 3 (t (165.54)=−2.22, p<0.05) the (96) intervention group was significantly in advance of the (95) control group on the Alphabet test. It is worth noting that at the Primary 2 stage there was a highly significant difference in the scores of the (96) intervention group and the (95) control group (t (221.07)=−4.24, p<0.0001). (By Primary 4, in both control and intervention groups, almost all children knew the alphabet).

Table 9.5: Comparison of (95) Control and (96) Intervention Mean Alphabet Test Scores. Across the cluster: all six schools in the study.

<table>
<thead>
<tr>
<th>Class</th>
<th>(95) Control Mean</th>
<th>SD (n=)</th>
<th>(96) Intervention Mean</th>
<th>SD (n=)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2</td>
<td>16.87</td>
<td>8.05</td>
<td>20.79</td>
<td>6.43</td>
<td>p&lt;0.0001</td>
</tr>
<tr>
<td></td>
<td>(117)</td>
<td></td>
<td>(136)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P3</td>
<td>23.03</td>
<td>5.26</td>
<td>24.41</td>
<td>3.48</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>(99)</td>
<td></td>
<td>(115)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P4</td>
<td>25.58</td>
<td>1.13</td>
<td>25.72</td>
<td>0.94</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>(105)</td>
<td></td>
<td>(95)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. The individual schools in the sample

Tables 9.6 and 9.7 show the results for each of the six schools in the study on the Burt Word Reading test and BI spelling tests. The tables show the mean scores, standard deviations and sample size for the (95) control groups and the (96) and (98) intervention groups in each school. A comparison of the performance of the groups was calculated using independent sample t-tests.
<table>
<thead>
<tr>
<th>School</th>
<th>Class</th>
<th>(95) Control</th>
<th>(96) Intervention</th>
<th>(98) Intervention</th>
<th>Comparison of (95) Control and (96) Intervention Mean Scores p value</th>
<th>Comparison of (95) Control and (98) Intervention Mean Scores p value</th>
<th>Comparison of (96) Intervention and (98) Intervention Mean Scores p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>P2</td>
<td>2.05</td>
<td>8.70</td>
<td>40.13</td>
<td>p&lt;0.01</td>
<td>NS</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>19.18</td>
<td>19.79</td>
<td>-</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>35.38</td>
<td>40.13</td>
<td>30.03</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>2</td>
<td>P2</td>
<td>2.05</td>
<td>4.46</td>
<td>1.75</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>11.70</td>
<td>21.89</td>
<td>-</td>
<td>p&lt;0.05</td>
<td>NS</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>39.09</td>
<td>33.05</td>
<td>30.03</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>3</td>
<td>P2</td>
<td>7.11</td>
<td>17.85</td>
<td>17.85</td>
<td>p&lt;0.01</td>
<td>NS</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>31.30</td>
<td>25.50</td>
<td>-</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>41.00</td>
<td>37.86</td>
<td>40.00</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>4</td>
<td>P2</td>
<td>1.75</td>
<td>3.85</td>
<td>2.00</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>19.85</td>
<td>25.40</td>
<td>-</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>44.85</td>
<td>20.38</td>
<td>28.86</td>
<td>p&lt;0.05</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>5</td>
<td>P2</td>
<td>3.44</td>
<td>4.77</td>
<td>3.44</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>8.75</td>
<td>23.29</td>
<td>23.29</td>
<td>p&lt;0.01</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>24.29</td>
<td>31.58</td>
<td>28.83</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>6</td>
<td>P2</td>
<td>12.95</td>
<td>14.95</td>
<td>42.65</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>28.40</td>
<td>37.20</td>
<td>42.65</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>42.65</td>
<td>44.90</td>
<td>43.38</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
</tbody>
</table>
It is interesting to note the varied pattern of attainment across the six schools both for the control and the intervention groups. In Table 9.6 for example, scrutiny of the entry to Primary 2 results for the (95) control shows a range of mean scores on the BRT of 1.75 in School 4 to 12.95 in School 6. The range in the mean scores of the (96) intervention group was from 3.85 in School 4 to 17.85 in School 3.

Schools also varied in terms of the primary stage where performance of the controls and the intervention groups was significantly different. Significant differences on the BRT in favour of the (96) intervention group were noted for different class stages in the schools. In Schools 1 and 3 significant increases in children’s literacy attainment were noted on entry to Primary 2 (t (25.09)=-2.83, p<0.01; t (37)=-3.33, p<0.01, respectively). In Schools 2 and 5 significant increases in children’s literacy attainment were noted on entry to Primary 3 (t (37)=-2.59, p<0.05; t (22.82)=-3.54, p<0.01, respectively). A significant difference in children’s mean BRT scores was found in School 4 at the Primary 4 stage (t (38)=-2.62, p<0.05). No significant gains in mean attainment were made in School 6, however, it is important to note that at the Primary 3 stage the mean score increased from 28.40 for the (95) control group to 37.20 for the (96) intervention group. The Primary 3 intervention group’s average raw score converted to a Reading Age of 7 years 1 month; this was in line with the average Chronological Age of the cohort which was 7 years 2 months.

It is worth noting that at the Primary 2 stage all schools showed improvement in the mean scores of the (96) intervention group when compared to the (95) control even though not all are statistically significant.

For the Burt Inglis spelling test (BI) results shown in Table 9.7, it was again interesting to note the varied pattern of attainment across the six schools both for the control and the intervention groups. For example, an examination of the entry to Primary 3 results for the (95) control showed a range of mean scores on the BI of 7.50 in School 5 to 21.50 in School 3. The range in the mean scores of the (96) intervention group was from 12.00 in School 5 to 23.10 in School 6.

Schools also varied in terms of the primary stage where performance of the controls and the intervention groups were significantly different. Significant differences on the BI spelling test in favour of the (96) intervention group were noted for different class stages in the schools. In School 1 a significant difference was found at Primary 4 between the BI spelling
test scores of the two groups in favour of the (96) intervention \( t (23.29) = -2.30, p<0.05 \). In School 4 while the intervention group, at Primary 4, did not score significantly higher than the (95) controls this approached significance \( t (38) = -2.02, p=0.05 \).

In School 2, the Primary 3 (96) intervention group was significantly in advance of the (95) control group on the BI spelling test \( t (36) = -3.29, p<0.01 \). In Schools 5 and 6 there were no significant differences in the scores of the two groups. However, it is important to point out that in School 6 the mean Spelling Ages of the Primary 3 and 4 (96) intervention groups were in line with the mean Chronological Ages of the classes.

For the Burt Word Reading test any significant differences found between the control and intervention groups indicated better performance by the intervention groups. This pattern of results is mirrored in the Burt Inglis spelling test results, apart from in one case, in School 3 where superior performance of the (95) control group at the Primary 3 stage almost reaches significance on an independent t-test \( t (28) = 2.05, p=0.05 \).
<table>
<thead>
<tr>
<th>School</th>
<th>Class</th>
<th>(95) Control</th>
<th>(96) Intervention</th>
<th>(98) Intervention</th>
<th>Comparison of (95) Control and (96) Intervention Mean Scores</th>
<th>Comparison of (95) Control and (98) Intervention Mean Scores</th>
<th>Comparison of (96) Intervention and (98) Intervention Mean Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>n=()</td>
<td>Mean</td>
<td>SD</td>
<td>n=()</td>
</tr>
<tr>
<td>1</td>
<td>P2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>7.5</td>
<td>7.12</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>12.53</td>
<td>8.75</td>
<td>15.16</td>
<td>9.36</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>19.95</td>
<td>7.15</td>
<td>27.07</td>
<td>10.35</td>
<td>27.07</td>
<td>11.09</td>
</tr>
<tr>
<td>2</td>
<td>P2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3.76</td>
<td>7.16</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>7.85</td>
<td>7.22</td>
<td>15.00</td>
<td>6.06</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>23.50</td>
<td>9.94</td>
<td>25.90</td>
<td>8.35</td>
<td>19.41</td>
<td>9.84</td>
</tr>
<tr>
<td>3</td>
<td>P2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>12.40</td>
<td>6.34</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>21.50</td>
<td>10.97</td>
<td>15.15</td>
<td>6.13</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>25.14</td>
<td>9.54</td>
<td>22.14</td>
<td>8.31</td>
<td>30.00</td>
<td>9.52</td>
</tr>
<tr>
<td>4</td>
<td>P2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5.50</td>
<td>6.65</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>15.20</td>
<td>8.11</td>
<td>12.42</td>
<td>7.81</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>21.10</td>
<td>7.50</td>
<td>26.65</td>
<td>9.76</td>
<td>23.58</td>
<td>8.85</td>
</tr>
<tr>
<td>5</td>
<td>P2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3.26</td>
<td>4.27</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>7.50</td>
<td>6.27</td>
<td>12.00</td>
<td>7.92</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>17.36</td>
<td>11.13</td>
<td>17.58</td>
<td>7.13</td>
<td>9.17</td>
<td>4.36</td>
</tr>
<tr>
<td>6</td>
<td>P2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>11.80</td>
<td>9.47</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>18.80</td>
<td>7.40</td>
<td>23.10</td>
<td>8.43</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>29.35</td>
<td>18.69</td>
<td>29.45</td>
<td>9.58</td>
<td>29.88</td>
<td>13.79</td>
</tr>
</tbody>
</table>
The results of the Alphabet test (Appendix 11, Table 5) for each school in the study show that on entry to Primary 2, in five of the six schools, the (95) control groups scored less than 20 on a test of alphabetic knowledge. Only School 6 scored above 20 (m=23.60, sd=4.74, n=20). In the five schools where the (95) control groups scored less than 20, a comparison of the performance of the (95) control groups with the (96) intervention groups, in all except School 2, favoured the intervention group. In the majority of schools, Primary 2 children demonstrated significantly better alphabetic knowledge after one year's involvement in the intervention project.

An aim of this part of the analysis was to explore how the intervention had impacted at different primary stages in the different schools. An examination of the results showed that the intervention had a varied pattern of impact across the six schools in terms of the primary stage where a positive significant difference to performance was made.

A noteworthy finding arising from the longitudinal phase of the study comes from an examination of the pattern of significant results found in Schools 1 and 3. On the Burt Word Reading Test Table 9.6 shows that these two schools are the only ones in the study where a comparison of the (95) control with the (98) intervention group at the Primary 4 stage revealed a significant difference in performance in favour of the intervention group. Three years on from the start of the project, Primary 4 children in Schools 1 and 3 who had taken part in the intervention were significantly advanced on the BRT compared to the control children who had not taken part (t (33)=-2.09, p<0.05; t (36)=-2.37, p<0.05, respectively). It is worth restating that the children in the (98) intervention group had all attended the school for the three-year period of the study. They had taken part in the 1995/96 school session and the 1996/97 school session of the intervention project and they attended a study school during the 1997/98 maintenance year when outside support for the intervention was withdrawn.

Schools 1 and 3 are the only examples of schools where the longitudinal data points to superior performance by the children who had taken part in the intervention project from the start. There is no obvious fade-out effect of the impact of the significantly positive difference in scores noted for the (96) intervention group at the Primary 2 stage. Children entering Primary 4 in 1998 are performing significantly better than the control group of Primary 4 children tested in 1995 who had not taken part in the project. To give some indication of this enhanced performance in terms
of the reading age of the children it is possible to convert the mean raw scores using a table of norms (SCRE, 1976). This reveals that the mean Reading Age of the (95) control group in School 1, on entry to Primary 4, was 6 years 11 months; and the mean Reading Age of the (98) intervention group was 7 years 10 months. The mean Reading Age of the (95) control group in School 3, on entry to Primary 4, was 7 years 5 months; and the mean Reading Age of the (98) intervention group was 8 years 10 months.

In School 1 the results for the (98) intervention group on the Burt Inglis spelling test were also noteworthy. This was the only school in the study where the longitudinal data revealed that compared with the (95) controls, on average, the (98) intervention children were performing statistically better in spelling. The results showed that the mean Spelling Age of the (95) control group in School 1 on entry to Primary 4 was less than 6 years 6 months whereas the mean Spelling Age of the (98) intervention group was 7 years 2 month. For School 3, while the mean score had increased in favour of the (98) intervention at Primary 4 \( (m=30, \, sd=9.52, \, n=16) \) compared to the (95) control \( (m=25.14, \, sd=9.54, \, n=22) \) this did not reach statistical significance.

The finding that in Schools 1 and 3 the Primary 4 (98) intervention children had a significant advantage over the Primary 4 (95) control children in reading; moreover that in School 1 the Primary 4 (98) intervention children also had a significant advantage in spelling, three years on from the start of the project, was an important finding in the light of all that is known about the tendency for intervention projects not to have lasting effects.

Some explanation for these noted longitudinal effects in reading might be offered from an examination of the Primary 2 mean scores for these two schools. An interesting similarity in the pattern of attainment for the intervention group is found. In both of these schools the performance of the (96) cohort of intervention children on the BRT was highly significantly in advance of the (95) control children. Independent t-tests computed at the 0.01 level of significance. These findings lend themselves to the possibility that the positive impact on reading scores during the first year of schooling may have contributed to the significant differences in attainment on entry to Primary 4. This hypothesis is explored further in the discussion section of this chapter.
3. The sample divided into two groups according to SES status

This next framework for analysis divided the sample of schools into two sub-groups. Table 9.8 shows the free meal entitlement (FME) for each of the six schools in the study. It can be seen from this table that the six schools fall into two distinct groups in terms of their levels of FME. Schools 1, 2, 4 and 5 (Group 1) can be described as having relatively higher FME and Schools 3 and 6 (Group 2) relatively lower FME. This section of the chapter examines the performance of the two groups on the literacy tests administered.

Table 9.8: 1995/96 and 1996/97 Mean Percentage Free Meal Entitlement for the six schools in the study and the local authority they serve.

<table>
<thead>
<tr>
<th>School</th>
<th>1995/96 Mean Percentage FME</th>
<th>1996/97 Mean Percentage FME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>82</td>
<td>88</td>
</tr>
<tr>
<td>2</td>
<td>80</td>
<td>74</td>
</tr>
<tr>
<td>3</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>4</td>
<td>81</td>
<td>84</td>
</tr>
<tr>
<td>5</td>
<td>90</td>
<td>92</td>
</tr>
<tr>
<td>6</td>
<td>41</td>
<td>41</td>
</tr>
</tbody>
</table>

It is interesting to first compare mean attainment scores at each Primary stage for the two groups. Tables 9.9 and 9.10 show the mean scores in the Burt Word Reading Test for Group 1 and Group 2, respectively. Looking first at the (95) control scores for Group 1 (high FME) and Group 2 (low FME) schools, there was a consistent pattern, at each primary stage, of children from Group 1 having much lower mean scores than Group 2. This was particularly striking at the Primary 2 and 3 stages, where a comparison of the mean BRT scores at Primary 2 for Group 1 and Group 2 schools were: 2.26 compared with 10.10; and at Primary 3: 15.10 compared with 29.37. While at each Primary stage in Group 1 (high FME) the mean score of the (96) intervention group was higher than that of the (95) control group, it was still lower than the mean score of the (96) intervention Group 2 (low FME). While children in (96) intervention Group 1 did not catch up with their more advantaged peers in (96) intervention Group 2, the gap between the mean scores decreased at the Primary 3 and 4 stages. All class stages in (96) intervention Group 1 increased their performance overall, and the improvement relative to the baseline was greater for Group 1 than for Group 2.
Table 9.9: Comparison of Control and Intervention Mean Burt Word Reading Test (BRT) Scores. Group 1: The four schools with highest Free Meal Entitlement in the study.

<table>
<thead>
<tr>
<th>Class</th>
<th>(95) Control</th>
<th>(96) Intervention</th>
<th>Comparison of (95) Control and (96) Intervention Mean Scores p value</th>
<th>(98) Intervention</th>
<th>Comparison of (95) Control and (96) Intervention Mean Scores p value</th>
<th>Comparison of (96) Intervention and (98) Intervention Mean Scores p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2</td>
<td>2.26 3.99</td>
<td>5.81 11.18</td>
<td>p&lt;0.01</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>P3</td>
<td>15.10 14.44</td>
<td>19.68 14.15</td>
<td>p=0.057</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>P4</td>
<td>33.14 16.97</td>
<td>37.82 17.95</td>
<td>NS</td>
<td>35.52 17.93</td>
<td>NS</td>
<td>NS</td>
</tr>
</tbody>
</table>

Group 1: High Free Meal Entitlement schools

On the Burt Word Reading test (Table 9.9) there was a significant difference between the scores of the (96) intervention group, and the (95) control group at the Primary 2 stage ($t(123.37)= -2.90, p<0.01$) in favour of the intervention group. At the Primary 3 stage, while the 96
intervention group did not score significantly higher than the 95 controls, the difference approached significance \( t(142)=-1.92, p=0.057 \). Performance did not differ significantly at the Primary 4 stage between the (96) intervention group and the (95) control group.

Table 9.11 shows that the results of the Primary 3 Burt Inglis spelling test for the (96) intervention group were not significantly in advance of the (95) control group, however, there was a trend towards significance \( t(140)=-1.92, p=0.057 \). At the Primary 4 stage there was a significant difference between the BI scores of the (96) intervention group and the (95) control group in favour of the intervention group \( t(142)=-2.28, p<0.05 \).

Table 9.11: Comparison of Control and Intervention Mean Burt Inglis Spelling Test (BI) Scores. Group 1: The four schools with highest Free Meal Entitlement in the study

<table>
<thead>
<tr>
<th>Class</th>
<th>(95) Control</th>
<th>(96) Intervention</th>
<th>Comparison of (95) Control and (96) Intervention Mean Scores</th>
<th>(98) Intervention</th>
<th>Comparison of (95) Control and (98) Intervention Mean Scores</th>
<th>Comparison of (96) Intervention and (98) Intervention Mean Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>n=()</td>
<td>Mean</td>
<td>SD</td>
<td>n=()</td>
</tr>
<tr>
<td>P2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td></td>
<td>4.0</td>
<td>6.6</td>
<td>-</td>
</tr>
<tr>
<td>P3</td>
<td>11.07</td>
<td>8.26</td>
<td>(69)</td>
<td>13.67</td>
<td>7.87</td>
<td>p=0.057</td>
</tr>
<tr>
<td>P4</td>
<td>20.79</td>
<td>8.97</td>
<td>(77)</td>
<td>24.30</td>
<td>9.50</td>
<td>p&lt;0.05</td>
</tr>
</tbody>
</table>

In terms of the longitudinal data, a comparison of the results of the BRT (Table 9.9) and the BI (Table 9.11) tests administered to the (98) intervention group, with those from the (96) intervention group, and the (95) control group reveal that performance did not differ significantly between the (98) intervention group and the other two groups. Table 9.11 shows that the mean score for Primary 4 (98) intervention pupils on the BI spelling test had returned to almost the same mean score as that noted for the (95) control group who had not taken part in the intervention. No statistically significant lasting effects of the involvement in the intervention are noted in the results of this follow-up test.
In terms of school Group 1's Alphabet scores (Appendix 11, Table 6) there was a significant difference in the performances of the (96) intervention group, and the (95) control group at the Primary 2 stage \( (t (153.33)=-4.12, p<0.0001) \) and at the Primary 3 stage \( (t (120.52)=-2.06, p<0.05) \) in favour of the intervention group. By Primary 4 almost all children knew the alphabet in both control and intervention groups. It is worth reiterating the ceiling effect in the Alphabet test: there is a maximum score of 26.

**Group 2: Lower Free Meal Entitlement schools**

On the Burt Word Reading test (Table 9.10) at the Primary 2 stage, performance by the (96) intervention group was significantly better than the (95) control group \( (t (77)=-2.49, p<0.05) \). Performance did not differ significantly at the Primary 3 or 4 stages between the (96) intervention group, and the (95) control groups.

On the Burt Inglis spelling test (Appendix 11, Table 8) at the Primary 3 and 4 stages performance did not differ significantly between the (96) intervention groups and the (95) control groups.

In terms of the longitudinal data, a comparison of the results from the BRT and the BI tests administered to the (98) intervention group, with those from the (96) intervention group, and the (95) control group reveal that performance did not differ significantly between the (98) intervention and either of the two groups. However, while it does not reach the level of significance it is worth noting in Table 9.10 that the mean BRT score for the (98) intervention group stands at 49.44 while the (95) control group mean score is 41.79.

In terms of Group 2's performance on the Alphabet test (Appendix 11, Table 7) the performance of the Primary 2 (96) intervention group was significantly more advanced than the Primary 2 (95) control group \( (t (48.50)=-3.05, p<0.01) \). In Group 2, almost all children knew nearly the whole alphabet at both the Primary 3 and Primary 4 stages, in both control and intervention groups.
It is noteworthy that for both Group 1 and Group 2 schools, Primary 2 stands out as the stage where statistically significant differences between the control and intervention groups were most often found.

**Personal Free Meal Entitlement**

The results described above have shown that different levels of literacy attainment were demonstrated by children who attended the school group with a high percentage of children with FME and those who attended the school group with a lower percentage of FME.

A key question for the next stage of the analysis was whether children’s personal free meal entitlement was related to their attainment.

**Table 9.12: Primary 2 Mean Burt Word Reading Test Scores (and standard deviations) for (95) Control and (96) Intervention Group by Free Meal Entitlement**

<table>
<thead>
<tr>
<th></th>
<th>(95) Control</th>
<th></th>
<th>(96) Intervention</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean SD n=()</td>
<td>Mean SD n=()</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FME</td>
<td>3.53 7.53 (66)</td>
<td>4.92 6.08 (74)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No FME</td>
<td>6.61 8.66 (51)</td>
<td>13.71 15.44 (62)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Looking again at the Burt Word Reading Test, Table 9.12 shows the mean scores for Primary 2 children with FME and No FME. It was found that while both intervention groups showed increased performance, the mean value of the scores for the children in the (96) intervention who had FME was still lower than that of the (96) intervention children who did not have FME (M=4.92 and M=13.71), respectively; and the extent of improvement was greater for the children with No FME.
Figure 9.1 is a plot of the means detailed in Table 9.12. It shows that the trends of the (95) control and (96) intervention groups’ mean scores are similar in direction, however, there is a marked difference in the slope between the FME children and the No FME children.

Both the FME and the No FME (96) intervention groups significantly increased their performance on the Burt Word Reading Test. However, in terms of the raw mean scores, Figure 9.1 illustrates the steeper slope of the No FME children. The mean score of children who were not entitled to a free meal approximately doubled after one year’s involvement in the intervention.

A Simple Factorial ANOVA was run using Primary 2 BRT score as the dependent variable with Group (control or intervention) and Meal (FME or No FME) as the factors.

A two-factor analysis of variance showed a significant main effect for the Group factor: $F(1, 249) = 11.29; p<0.01$; and a significant main effect for the Meal factor: $F(1, 249) = 22.06; p<0.0005$. As predicted, the analysis confirmed that being in the (95) control group or the (96) intervention group had a differential effect on children’s literacy performance. Moreover, whether children had a free meal entitlement or not, also had a significant effect. Put simply, the group of Primary 2 children who had taken part in a year of intervention had a significantly
higher mean score on the BRT than those who had not; and children who did not have FME had significantly better mean scores than those who had FME.

However, the analysis of variance also showed that there was a two-way interaction between Group and Meal $F(1, 249) = 5.11; p<0.05$. This is a very interesting finding. It can be seen from Figure 9.1 that the mean scores related not only to the group the children were in, whether it was (95) control or (96) intervention, and to whether the children had free meal entitlement, but also to the particular combination of the values of the variables Group and Meal. Interaction variations are those attributable not to either of two influences acting alone but to joint effects of the two acting together. This interaction shows that the two variables Group and Meal jointly affected the dependent variable: the BRT score. The ratings for Group (control or intervention) depended on the uptake of free school meals. The graph demonstrates that being in the intervention group had a more positive impact in terms of BRT score on children who had No FME. Figure 9.1 shows clearly the widening gap between the reading scores of the intervention children with No FME and their less advantaged peers. That said, it is important to highlight that the intervention children with FME did significantly increase their mean score in comparison to the control.

An analysis of variance was also conducted for both Primary 3 and Primary 4 pupils. The analysis examined the mean BRT scores of the children in the (95) control and the (96) intervention groups, with the aim of investigating whether children’s personal free meal entitlement was related to their literacy scores.

For the Primary 3 stage a two-factor analysis of variance showed a significant main effect for the Meal factor: $F(1, 210) =13.26, p<0.0005$; and no significant effect for the Group factor: $F(1, 210) = 2.32; NS$. There was no significant interaction between Group and Meal $F(1, 210) =0.49; NS$.

For the Primary 4 stage a two-factor analysis of variance showed a significant main effect for the Meal factor: $F(1, 210) =4.34, p<0.05$; and no significant effect for the Group factor: $F(1, 210) = 0.91; NS$. There was no significant interaction between Group and Meal: $F(1, 210) =3.33; NS$. 

253
The above results revealed that entry to Primary 2 was the only stage where a two-way interaction between variables existed. Because of this differential effect further investigation of the Primary 2 stage was conducted.

It was established that the two variables Group and Meal jointly affected the dependent variable: the BRT score. The analysis then explored whether there was a relationship between these variables and the variable associated with the socio-economic status of the school catchment. The variable School Group was introduced to the analysis. To restate: the School Group variable used the percentage of children with FME on the role as a measure of SES. School Group 1 consisted of the four schools where, in relative terms, there were a higher percentage of children on the role with FME; and School Group 2 was made up of the two schools where the percentage of children with FME was, in relative terms, lower.

The aim of this part of the analysis was to investigate the relationship between the variables: Group (control or intervention) and Meal (FME or No FME) and School Group (High FME or Low FME). Table 9.13 shows the Primary 2 BRT mean and standard deviation scores for School Group and FME status.

Table 9.13: Primary 2 Mean BRT Scores: Group 1 (high FME) and Group 2 (low FME)

<table>
<thead>
<tr>
<th>Group and Free Meal Status</th>
<th>95 Control Group</th>
<th>96 Intervention Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>N</td>
</tr>
<tr>
<td>Group 1 FME</td>
<td>2.18</td>
<td>57</td>
</tr>
<tr>
<td>Group 1 No FME</td>
<td>2.48</td>
<td>21</td>
</tr>
<tr>
<td>Group 2 FME</td>
<td>12.11</td>
<td>9</td>
</tr>
<tr>
<td>Group 2 No FME</td>
<td>9.50</td>
<td>30</td>
</tr>
</tbody>
</table>
The means scores for each School Group with FME status are plotted in Figure 9.2. The chart illustrates a range of conditions in the study. These can be described as

Children in School Group 1:
- who have FME
- who do not have FME

Children in School Group 2:
- who have FME
- who do not have FME

The chart shows the marked difference between the No FME slope and the FME slope for both School Groups.

A three-factor analysis of variance showed a significant main effect for the Group factor: $F (1, 245) = 8.18$, $p<0.01$; a significant main effect for the School Group factor: $F (1, 245) = 31.40$, $p<0.0005$; but no significant effect for Meal: $F (1, 245) = 2.89$, NS.

The analysis of variance also showed that there was a two-way interaction between Group and Meal: $F (1, 245) = 6.17$, $p<0.05$. There was no significant two-way interaction between Group
and School group: F (1, 245) = 0.03, NS; or between Meal and School Group: F (1, 245) = 0.13, NS. There is no evidence of a three-factor interaction: F (1, 245) = 0.40, NS.

It is important to note that the small F value associated with the variable Meal does not indicate that the BRT score is unaffected by Meal, since Meal is included in the significant interaction term.

Figure 9.2 demonstrates the relationship between the variables Group and Meal when School Group is held constant. It illustrates the interaction whereby the two variables Group and Meal jointly affect the dependent variable: the BRT score.

Holding school group constant at School Group 1 reveals a very interesting interaction effect (see bottom two lines plotted on the chart). The chart shows that in School Group 1 the FME (96) intervention children and No FME (95) control children’s mean scores were almost the same (M= 2.18 and M=2.48 respectively). However, the chart clearly shows that the FME and No FME (96) intervention group mean scores are significantly different (M=3.89 and M=9.66 respectively).

Holding school group constant at School Group 2 (top two lines plotted) also showed an interaction effect between Meal and Group. The cross-over effect of the lines again showed that the variation was attributable not to either of the two influences acting alone, but to joint effects of the two acting together. This interaction showed that the two variables Group and Meal jointly affected the dependent variable - the BRT score. The line representing School Group 2 FME children is almost flat, revealing almost no difference between the control and intervention group mean scores. However, there is a clear increase in the means scores of the intervention children with No FME.

It is interesting to note that regardless of whether the children attended a school in the group with the relatively higher or lower percentage of children with FME, the intervention had a more positive impact on the children who were not entitled to a free school meal. The slope of the No FME line for both School Groups is very similar. In both School Groups, for the intervention
children, there was a widening of the gap in the reading scores of the children with FME and their more advantaged peers.

Investigation 2: An examination of the factors affecting children's progress and attainment in literacy during the intervention.

Investigation 1, discussed in the previous section of this chapter, was designed to offer a comparison of the intervention and control groups; in other words, a comparison of the literacy attainment of children who took part in the intervention and children who had not.

This part of the chapter turns now to Investigation 2, which sought to estimate the factors affecting children's progress and attainment in literacy at first follow-up (after one year of intervention) and at second follow-up (three years from the start of the intervention). Also explored are the different factors affecting the literacy skills on entry to Primary 1 of the children who took part in the intervention from the start. And, finally, the predictors of attainment on entry to Primary 2, 3 and 4 for children who had taken part in one year of the intervention are compared with a control group who had not.

In terms of studying children's progress a comparison with a control group was not possible because of a range of reasons associated with the design of the study discussed earlier in the chapter. However, even without a control group because of the longitudinal design of this study, there is still much that can be learned about children's literacy development from the progress data.

Only children for whom there were test results at either two or three different points in time could be used in the progress part of the analysis: clearly when studying progress it is necessary to have results from different measurement points.

Table 9.14 shows the number of children in the sample for this part of the analysis. It shows the number of children at Primary 1, 2 and 3 who had two years of test data gathered from the pre-test administered at the start of session 1995 and the post test (1) administered at the start of session 1996. Of the cohort who had data for entry to Primary 1 and entry to Primary 2, 93 were available to undertake Post-test (2) at the start of session 1998. 30 children from the original sample of 123 tested on entry to Primary 1 were not available for testing at second follow-up as they had either moved school or were absent during the test period.
Table 9.14: Number of children at each stage who had follow-up data after 12 and 36 months

<table>
<thead>
<tr>
<th>Year</th>
<th>Pre-test Entry to Primary 1</th>
<th>Post-test (1) Entry to Primary 2</th>
<th>Post-test (2) Entry to Primary 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>123</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>123</td>
<td>First follow-up after 12 months</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>93</td>
<td>Second follow-up after 36 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of Children tested</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>123</td>
<td>123</td>
<td>93</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Pre-test Entry to Primary 2</th>
<th>Post-test (1) Entry to Primary 3</th>
<th>Post-test (1) Entry to Primary 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>101</td>
<td>First follow-up after 12 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of Children tested</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>101</td>
<td>101</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Pre-test Entry to Primary 3</th>
<th>Post-test (1) Entry to Primary 4</th>
<th>First follow-up after 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>81</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of Children tested</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>81</td>
<td>81</td>
<td></td>
</tr>
</tbody>
</table>

In this part of the analysis multiple regression techniques were used to explore the nature of the relationship between variables.

Variables used in this part of the analysis can be categorised as those at pupil and school levels

**Pupil level**
- gender
- age
- free meal entitlement
• primary class
• school attended
• attendance at nursery
• age on entry to school
• literacy test scores

**School level**
• Individual school
• School group: percentage of pupils with FME attending the school

Regression analysis techniques were used to explore the importance of input variables drawn from the list above in explaining the areas of progress and attainment under investigation. The output variables were test scores gathered at different points in the study.

A forced method was used for entering the variables. All predictors were entered into the model simultaneously. Sound reasons underpinned the inclusion of the chosen predictors: the variables were selected because of their known theoretical importance in terms of predicting success in acquiring literacy skills.

Some of the independent variables were categorical in nature. Therefore, it was necessary to convert them to a series of dummy variables. This procedure was carried out for the following variables: Gender; FME; School; School Group; and Age on Entry.

All tables in this section of the analysis report the regression coefficient B expressed in non-standardised units; as well as the Beta coefficient β expressed in standard deviation units.

The column headed B (see for example Table 9.15) shows the relationship between children’s literacy score on entry to school (the dependent variable in this case) and each predictor. If the value is positive this indicates that there is a positive relationship between the predictor and the outcome, whereas a negative coefficient represents a negative relationship. The B value also offers information about the degree to which each predictor affects the outcome if the effects of all other predictors are held constant. However, the standardised beta values, listed in the next
column in the table, are measured in standard deviation units and are not dependent on the units of measurement of the variables. They are directly comparable and therefore offer a better sense of the importance of each predictor in the model. Consequently, the relative contribution of each predictor in the model can be judged (Gray and Kinnear, 1998; Field, 2000).

Factors affecting literacy attainment on entry to Primary 1.

Analysis of variance carried out on the data showed that significant differences were demonstrated between the study schools in terms of the baseline literacy scores of their pupils on entry to Primary 1, (F (5,117)=3.76, p<0.01).

Regression analysis techniques were used to explore the importance of a range of other factors in explaining the differences in the literacy attainment in the sample of children starting school at the start of the intervention study. The variables in the predictive factors column define a reference group against which the others are compared.

<table>
<thead>
<tr>
<th>Predictive Factors</th>
<th>B</th>
<th>Standardised beta value</th>
<th>p value</th>
<th>Children with higher scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Free Meal Entitlement</td>
<td>-3.22</td>
<td>-0.21</td>
<td>p&lt;0.05</td>
<td>Children who did not have FME</td>
</tr>
<tr>
<td>School Group Percentage FME</td>
<td>-4.11</td>
<td>-0.24</td>
<td>p&lt;0.01</td>
<td>Children who attended the school group that had a lower percentage of pupils with FME</td>
</tr>
<tr>
<td>Gender</td>
<td>-1.16</td>
<td>-0.07</td>
<td>NS</td>
<td>No significant effect</td>
</tr>
<tr>
<td>Age on entry to Primary 1 (age 5 or older compared to the rest</td>
<td>1.87</td>
<td>0.12</td>
<td>NS</td>
<td>Children who were aged over 5 years on entry to Primary 1 (not significantly)</td>
</tr>
<tr>
<td>Attendance at Nursery</td>
<td>2.82</td>
<td>0.08</td>
<td>NS</td>
<td>No significant effect</td>
</tr>
</tbody>
</table>

Table 9.15 shows the effects of each of these factors, all other things being equal, on children’s literacy scores on entry to Primary 1. In other words when the other variables in the model are
held constant it shows whether each explanatory factor has a positive or negative effect on children’s baseline scores.

The results showed that there was a weak positive association between being aged five or over on entry to school and having higher scores. On average, the older children had higher baseline scores than children who had not had their fifth birthday, however this was not statistically significant at the 5 percent level. There was no significant difference, on average, between the scores of boys and girls, nor between the scores of children who had attended nursery and those who had not. The factors that were the most important predictors of children’s literacy scores on entry to Primary 1 were associated with socio-economic status (SES). Both the individual SES status of the child, and the SES status of the school group attended had an impact on children’s baseline literacy score. Children who had FME had significantly lower scores at pre-test than those who did not (t = -2.27, p<0.05); and children who attended a school in the group with the higher percentage of children with FME had statistically, significantly lower pre-test scores than those who attended a school in the group with the lower percentage of children with FME (t = -2.66, p<0.01). A combination of the effects of these factors had a cumulative impact on children’s baseline score.

Factors affecting progress and attainment
This part of the analysis deals with the factors affecting children’s progress and attainment at different stages of the Primary school.

Pre-test data were gathered at the start of the 1995 school session and post test (1) data were gathered at the start of the 1996 school session. For one cohort - children who entered Primary 1 in 1995 at the start of the intervention- longitudinal data were also gathered in 1998 at the beginning of their Primary 4 year. This was three years after the children had undertaken the pre-test.

Regression analysis techniques were used to explore the importance of the input variables in explaining pupil attainment during the intervention; and, controlling for literacy ability at the outset, the factors that impacted on progress were estimated.
Table 9.16: Predictive factors from entry to Primary 1 to entry to Primary 2 during the first year of intervention: pre-test to first follow-up

<table>
<thead>
<tr>
<th>Predictive Factors</th>
<th>B</th>
<th>Standardised beta value SD units</th>
<th>p value</th>
<th>Children performing better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test literacy score</td>
<td>2.02</td>
<td>0.67</td>
<td>p&lt;0.00005</td>
<td>Those performing better on literacy assessment at pre-test</td>
</tr>
<tr>
<td>Free Meal Entitlement</td>
<td>-6.62</td>
<td>-0.14</td>
<td>p&lt;0.05</td>
<td>Those who did not have a Free Meal Entitlement</td>
</tr>
<tr>
<td>Gender</td>
<td>5.04</td>
<td>0.11</td>
<td>NS</td>
<td>Girls (not significantly)</td>
</tr>
<tr>
<td>Age on entry to school (age 5 or older compared to the rest)</td>
<td>1.84</td>
<td>0.04</td>
<td>NS</td>
<td>No significant effect</td>
</tr>
</tbody>
</table>

The Alphabet test was used as the pre-test measure of literacy. FIRST follow-up literacy score was composite score of the three literacy tests administered.

Table 9.16 shows the predictive factors from entry to Primary 1 to entry to Primary 2 during the first year of intervention. Any analysis associated with progress used children’s measures at pre-test as the measure of initial literacy ability.

A regression analysis was performed using a composite of all the literacy measures at first follow-up as the dependent variable. Composite scores are commonly used in intervention studies (see, for example Sylva and Hurry, 1995). Importantly, as already discussed there was a good correlation between these tests.

Controlling for FME, Gender and Age on Entry, it was found that the strongest predictor of a child’s literacy attainment on entry to Primary 2 was the child’s own pre-test score (t=9.90, p<0.00005): the effect of the previous measurement point was highly significant and made by far the greatest contribution.

Children who entered school in Primary 1 with FME had lower scores at pre-test. (See Table 9.15.) However, even controlling for their initial literacy ability, children with FME still made significantly less progress during the first year of the intervention than the children who did not have FME (t=-2.10, p<0.05).
This was an important finding because this cohort of children, who were in their first year of schooling, was the only cohort of children where the progress of children with a free meal entitlement differed significantly from their peers with no FME. In comparison, analysis of other data sets showed that during the first year of the intervention, for children on entry to Primary 2 through entry to Primary 3, and for Primary 3 through entry to Primary 4 free meal entitlement was not measured as a significant predictor of literacy progress.

Making allowance for the different starting points of the children there was no indication of further effect of age, on literacy attainment on entry to Primary 2. Children who had entered school aged five years or younger, made as much progress as children who were aged five years or over, with the same level of pre-test attainment. During the first year of intervention, a weak positive association for girls and literacy progress started to emerge from entry to Primary 1 to entry Primary 2. On average, girls made better progress than boys who had entered school with the same baseline literacy scores; however, this finding was not statistically significant at the 5 percent level.

Table 9.17: Predictive factors from entry to Primary 2 to entry to Primary 4: first follow-up to second follow-up

<table>
<thead>
<tr>
<th>Predictive Factors</th>
<th>B</th>
<th>Standardised beta value SD units</th>
<th>p value</th>
<th>Children performing better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test literacy score</td>
<td>-0.31</td>
<td>-0.08</td>
<td>NS</td>
<td>No significant effect</td>
</tr>
<tr>
<td>First follow-up literacy score</td>
<td>1.04</td>
<td>0.88</td>
<td>p&lt;0.00005</td>
<td>Those performing better on literacy assessments at first follow-up</td>
</tr>
<tr>
<td>Free Meal Entitlement</td>
<td>-1.37</td>
<td>-0.02</td>
<td>NS</td>
<td>No significant effect</td>
</tr>
<tr>
<td>Gender</td>
<td>6.28</td>
<td>0.11</td>
<td>NS</td>
<td>Girls (not significantly)</td>
</tr>
<tr>
<td>Age on entry to Primary 2 (age 6 or older compared to the rest)</td>
<td>-3.11</td>
<td>-0.05</td>
<td>NS</td>
<td>No significant effect</td>
</tr>
</tbody>
</table>

The Alphabet test was used as the pre-test measure of literacy
First follow-up literacy score was a composite score of the three literacy tests administered
Second follow-up literacy score was a composite score of the three literacy tests administered

For the 93 members of this cohort of children who were available for testing at second follow-up, the longitudinal test data revealed the factors predicting literacy performance from entry to Primary 2 to entry to Primary 4. Table 9.17 shows that, again, by far the best predictor of literacy
attainment was literacy attainment at the previous measurement point, in this case first follow-up (t=10.44, p<0.00005): the effect was highly significant and made by far the greatest contribution. As is shown in Table 9.17, a change of one standard deviation on that variable produced a change of 0.88 standard deviations on the dependent variable - second follow-up score.

Controlling for literacy attainment on entry to Primary 2, children with FME did not differ significantly in the progress they made through entry Primary 2 to entry Primary 4 compared to their peers with No FME. There was no further effect of FME on progress. Again, a weak positive association (t=1.77, p=0.079) is noted for the progress made by girls in comparison with boys with similar scores on entry to Primary 2.

Table 9.18: Predictive factors from entry to Primary 1 to entry to Primary 4: pre-test to second follow-up

<table>
<thead>
<tr>
<th>Predictive Factors</th>
<th>B</th>
<th>Standardised beta value</th>
<th>p value</th>
<th>Children performing better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test literacy score</td>
<td>2.03</td>
<td>0.51</td>
<td>p&lt;0.00005</td>
<td>Those performing better on literacy assessment at pre-test</td>
</tr>
<tr>
<td>Free Meal Entitlement</td>
<td>-6.15</td>
<td>-0.10</td>
<td>NS</td>
<td>Those who did not have a Free Meal Entitlement (not significantly)</td>
</tr>
<tr>
<td>Gender</td>
<td>10.93</td>
<td>0.18</td>
<td>p&lt;0.05</td>
<td>Girls</td>
</tr>
<tr>
<td>Age on entry to Primary 1 (age 5 or older compared to the rest)</td>
<td>-2.70</td>
<td>-0.05</td>
<td>NS</td>
<td>No significant effect</td>
</tr>
</tbody>
</table>

The Alphabet test was used as the pre-test measure of literacy
Second follow-up literacy score was a composite score of the three literacy tests administered

Table 9.18 presents the finding from the three year longitudinal dimension of the analysis. Controlling for FME, Gender and Age on Entry, the effect of children’s pre-test literacy score on literacy attainment on entry to Primary 4 was highly significant (t=5.32, p<0.00005). In this regression model the most powerful predictor of later attainment was the child’s performance on entry to school. In terms of gender, over the three years girls made statistically better progress than boys who had entered school with comparable baseline scores (t=2.08, p<0.05). Over the
three years a weak negative association with having FME was found in the longitudinal data, however this finding was not statistically significant.

**The differential progress for FME children in the first year of schooling**

The findings associated with differential progress for FME children in the first year of schooling warrant further scrutiny. Figure 9.3 shows the differential attainment for FME and No FME children at the different primary stages. It also shows the divergence in progress made by FME and No FME children through entry Primary 1 to entry Primary 2, followed by their essentially parallel progress from entry Primary 2 through to entry Primary 4. Progress is the slope of the lines; attainment is the level they reach. It is important to restate that this divergence of progress by FME and No FME children was only found for the year group who took part in the intervention during their Primary 1 year of schooling.

Figure 9.3: A comparison of the average progress and attainment made by children with Free Meal Entitlement and no Free Meal Entitlement: from entry Primary 1 through entry Primary 2 and through entry Primary 4.

As stated earlier, the design of the intervention did not allow for a comparison of the literacy progress of children who had taken part in the intervention, with the progress of a control group who had not. Therefore, based on only the above findings, no claims are made that the differential progress associated with free meal entitlement in the first year of schooling was
associated with involvement in the intervention. However, the following further analysis of the
data shed some more light on the above findings.

As was discussed at the beginning of the chapter the design meant that it was possible to
compare the factors predicting literacy attainment, after one year of schooling, for the
intervention children with the attainment of a control group who had not taken part in the
intervention.

Using regression analysis techniques, Table 9.19 shows the effects of a range factors, all other
things being equal, on literacy scores on entry to Primary 2 for children who, during their first
year at school, took part in the intervention. This was the same sample of children used in the
analysis illustrated in fig 3. Table 9.20 shows the effects on literacy scores on entry to Primary 2,
for a control group who had not taken part in the intervention.

An important finding was that there were differences in the factors predicting literacy attainment
for the control and intervention groups on entry to Primary 2.

For both groups the SES of the school group attended had an impact on their literacy score.
However, it is noteworthy that for children who took part in the intervention during their first
year of school, personal FME status was also a significant predictor of their entry to Primary 2
literacy score, while for the control group personal FME was not a significant predictor of this.
A comparison of the regression coefficient for the predictor FME status in 1995, with the
regression coefficient for the predictor FME status in 1996, indicates that the difference between
these coefficients is statistically significant (t=-2.613 p=<0.05).
Table 9.19: Factors predicting literacy score on entry to Primary 2 in 1996 for children who had taken part in the intervention during their first year at school

<table>
<thead>
<tr>
<th>Predictive factors</th>
<th>B</th>
<th>Standardised beta value SD units</th>
<th>( p ) value</th>
<th>Children with higher scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Free Meal Entitlement</td>
<td>-6.07</td>
<td>-0.19</td>
<td>( p&lt;0.05 )</td>
<td>Children who did not have FME</td>
</tr>
<tr>
<td>School Group percentage FME</td>
<td>-13.31</td>
<td>-0.37</td>
<td>( p&lt;0.0001 )</td>
<td>Children who attended the school group that had a lower percentage of pupils with FME</td>
</tr>
<tr>
<td>Gender</td>
<td>1.83</td>
<td>0.06</td>
<td>NS</td>
<td>No significant effect</td>
</tr>
<tr>
<td>Age on entry to Primary 2 (age 6 or older compared to the rest)</td>
<td>3.05</td>
<td>0.09</td>
<td>NS</td>
<td>No significant effect</td>
</tr>
</tbody>
</table>

The literacy score was a composite score of the Alphabet and Burt Vernon tests.

Table 9.20: Factors predicting literacy score on entry to Primary 2 in 1995 for the control group who had not taken part in the intervention during their first year at school

<table>
<thead>
<tr>
<th>Predictive factors</th>
<th>B</th>
<th>Standardised beta value SD units</th>
<th>( p ) value</th>
<th>Children with higher scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Free Meal Entitlement</td>
<td>-1.04</td>
<td>-0.04</td>
<td>NS</td>
<td>No significant effect</td>
</tr>
<tr>
<td>School Group percentage FME</td>
<td>-14.35</td>
<td>-0.49</td>
<td>( p&lt;0.0001 )</td>
<td>Children who attended the school group that had a lower percentage of pupils with FME</td>
</tr>
<tr>
<td>Gender</td>
<td>1.00</td>
<td>0.03</td>
<td>NS</td>
<td>No significant effect</td>
</tr>
<tr>
<td>Age on entry to Primary 2 (age 6 or older compared to the rest)</td>
<td>-0.55</td>
<td>-0.19</td>
<td>NS</td>
<td>No significant effect</td>
</tr>
</tbody>
</table>

The literacy score was a composite score of the Alphabet and Burt Vernon tests.

Regression analysis techniques were also used to investigate whether there were any significant changes to the predictors of children's literacy scores on entry to Primary 3 and Primary 4. Unlike at the Primary 2 stage, these revealed no significant changes to the pattern, or to the predictors of children's literacy scores for intervention or control children. Also Free Meal Entitlement was not a significant predictor for the intervention or control in these year groups.

These findings suggest that during the first year at school, children with No FME (the more advantaged children) were more likely than their less advantaged peers to have benefited from involvement in the intervention. This finding will be explored further in the discussion.
This impact on the predictors for attainment at the entry to Primary 2 stage corroborate the analysis undertaken in Investigation 1, suggesting that involvement in the intervention impacted differently on the attainment of FME and No FME children at this primary stage.

In terms of progress, as already stated there was no control group that could be used to compare the progress of children who had taken part in the intervention and those who had not, therefore no definitive claims are made that the differential progress associated with free meal entitlement in the first year of schooling was associated with involvement in the intervention. However, it is important to note that the differential pattern of progress for FME and No FME children during the first year of schooling does mirror the pattern of differential attainment for FME and No FME children at this primary stage which was not found for the attainment control group. Taking this evidence into account, it is possible that involvement in the intervention may also have been associated with the differential progress made by FME and no FME children.

School differences in children's literacy progress during the intervention
Analysis of variance carried out on the data showed that significant differences were demonstrated between the study schools in terms of the baseline literacy scores of their pupils on entry to Primary 1, \( F(5,117)=3.76, p<0.01 \).

Taking account of this variation in starting scores, the study sought to explore school differences in the literacy progress made by children during the intervention. Regression analysis techniques were used to investigate the importance of the school attended in explaining pupil progress. One of the schools was selected as a comparison school and the progress made by children in each of the other schools in the study was evaluated against that school. Importantly, as well as children's baseline literacy score, these analyses took account of, FME, Gender and Age on entry to school.

This part of the analysis focused on two areas. Firstly, the progress for the cohort of children who had test results at three points in time (entry to Primary 1, 2 and 4) was explored. Secondly, the progress made by the two cohorts of children for whom there were results for two measurement points: entry to Primary 2 through entry to Primary 3; and entry to Primary 3 through entry to Primary 4.
For the first area scrutinised, School 3 was selected as the comparison school. Investigation 1 had shown that the pattern of attainment in this school was noteworthy on entry to Primary 2. And in Investigation 1 the analysis of the longitudinal data indicated that this was also one of the two schools where there was significantly superior attainment by intervention children compared with the controls after three years on entry to Primary 4.

However, it is important to note that this part of the analysis is concerned with a comparison of the progress made by children in School 3 and children in the other five schools, rather than a comparison of attainment. Table 9.21, therefore shows the difference between the literacy progress made by children in School 3 and each of the other study schools, during the period entry to Primary 1 through entry to Primary 2, with all other variables held constant. The regression coefficient B refers to the schools' contribution to children's literacy progress after controlling for children's attainment at the outset and other explanatory factors.

Scrutiny of the standardised beta value column in Table 9.21 allows a comparison of the difference in progress between the average literacy progress made in School 3 with that of each school in the study. If the null hypothesis was true and the average progress made by each school was the same as that made in comparison School 3, the standardised beta values would be zero. As Table 9.21 shows this is not the case: there is a negative direction in the relationship when the average progress of each school in the study was compared with that of School 3.

After controlling for children's scores at the outset and other explanatory factors, clear differences between schools were found for this cohort in terms of the literacy progress made during the first year of the intervention. The difference in average progress made between children in School 3 and School 2 was found to be statistically highly significant in favour of the children from School 3 (t=-4.36, p<0.00005). Also, on average, children from School 3 progressed significantly better than children in School 4 (t=-2.23, p<0.05). In addition, while a comparison of the literacy performance of children in School 3 with School 5 did not reach statistical significance, there was a trend toward significance in favour of School 3 (t=-1.90, p=0.059). No significant difference was found between the average progress of children in School 3 and children in School 1, or between children in School 3 and those in School 6.
Table 9.21: The difference in literacy progress (with all other variables held constant) between children in School 3 and children in the other schools in the study. Entry to Primary 1 to entry to Primary 2: pre-test to first follow-up.

<table>
<thead>
<tr>
<th>School</th>
<th>B</th>
<th>Standardised beta value (SD units)</th>
<th>p value</th>
<th>Reference Column</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-3.83</td>
<td>-0.06</td>
<td>NS</td>
<td>No significant difference in progress</td>
</tr>
<tr>
<td>2</td>
<td>-19.85</td>
<td>-0.39</td>
<td>p&lt;0.00005</td>
<td>Yes, children in School 3 made significantly better progress</td>
</tr>
<tr>
<td>4</td>
<td>-12.52</td>
<td>-0.17</td>
<td>p&lt;0.05</td>
<td>Yes, children in School 3 made significantly better progress</td>
</tr>
<tr>
<td>5</td>
<td>-10.49</td>
<td>-0.15</td>
<td>p&lt;0.059</td>
<td>While children in School 3 did not make significantly better progress, there was a trend towards significance</td>
</tr>
<tr>
<td>6</td>
<td>-6.41</td>
<td>-0.10</td>
<td>NS</td>
<td>No significant difference in progress</td>
</tr>
</tbody>
</table>

Following this cohort of children on to entry to Primary 2 through entry to Primary 4 (Table 9.22), and still using School 3 as the comparison school, revealed changes to the pattern of progress. Controlling for other explanatory variables, children from Schools 2 and 4 now held their own with children from School 3. No significant differences were found between the average progress of children in School 3 and children in School 2, or between School 3 and School 4, from first to second follow-up. No significant differences had emerged in the progress of children in School 1 or School 6, as compared with children in School 3. Scrutiny of the standardised beta values for these five schools shows very little variation. However, on average, children in School 3 continued to make significantly more progress than children in School 5 during the period entry to Primary 2 through entry to Primary 4 (t=-2.44, p<0.05).
Table 9.22: The difference in literacy progress (with all other variables held constant) between children in School 3 and children in the other Schools in the study. Entry to Primary 2 to entry to Primary 4: first follow-up to second follow-up

<table>
<thead>
<tr>
<th>School</th>
<th>B</th>
<th>Standardised beta value SD Units</th>
<th>p value</th>
<th>Reference Column - School 3</th>
<th>Is there a difference?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1.09</td>
<td>0.01</td>
<td>NS</td>
<td>No significant difference in progress</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-3.20</td>
<td>-0.05</td>
<td>NS</td>
<td>No significant difference in progress</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4.08</td>
<td>0.05</td>
<td>NS</td>
<td>No significant difference in progress</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>-21.26</td>
<td>-0.18</td>
<td>p&lt;0.05</td>
<td>Yes, children in School 3 made significantly better progress</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>-4.30</td>
<td>-0.05</td>
<td>NS</td>
<td>No significant difference in progress</td>
</tr>
</tbody>
</table>

Table 9.23 shows the longitudinal data, from entry to Primary 1 through to entry to Primary 4 for this same cohort of children. Again, using School 3 as the comparison school, the beta values indicate the negative direction of the relationship, in all but one of the schools, when the average progress of children from each school in the study was compared with that of the children in School 3. While the effect is tiny, and clearly does not approach significance, School 1 showed a positive beta value.

From entry to Primary 1 through to entry to Primary 4, the difference in average progress between children in School 3 and School 2 (t=-3.26, p<0.01); as well as between School 3 and School 5 (t=-2.83, p<0.01), were found to be statistically highly significant in favour of the children from School 3.
Table 9.23: The difference in literacy progress (with all other variables held constant) between children in School 3 and children in the other Schools in the study. Entry to Primary 1 to entry to Primary 4: pre-test to second follow-up

<table>
<thead>
<tr>
<th>School</th>
<th>B</th>
<th>Standardised beta value SD Units</th>
<th>p value</th>
<th>Reference Column - School 3 Is there a difference?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.84</td>
<td>0.02</td>
<td>NS</td>
<td>No significant difference in progress</td>
</tr>
<tr>
<td>2</td>
<td>-25.39</td>
<td>-0.40</td>
<td>p&lt;0.01</td>
<td>Yes, children in School 3 made significantly better progress</td>
</tr>
<tr>
<td>4</td>
<td>-8.54</td>
<td>-0.10</td>
<td>NS</td>
<td>No significant difference in progress</td>
</tr>
<tr>
<td>5</td>
<td>-34.22</td>
<td>-0.29</td>
<td>p&lt;0.01</td>
<td>Yes, children in School 3 made significantly better progress</td>
</tr>
<tr>
<td>6</td>
<td>-13.22</td>
<td>-0.17</td>
<td>NS</td>
<td>No significant difference in progress</td>
</tr>
</tbody>
</table>

This part of the analysis compared the progress in literacy made by children at first follow-up (after one year) and at second follow-up (three years from the start of the intervention) in the six schools. The findings indicated noteworthy consistencies in the pattern of literacy progress made by children in School 3 and School 1, when compared to the other study schools. After controlling for children’s scores at the outset and other explanatory factors, the standardised beta values for each regression analysis offered a sense of the relative contribution of the individual schools as predictors of progress. Ranking these standardised beta values demonstrated that Schools 1 and 3 ranked first and second respectively in terms of progress for both the entry to Primary 1 through entry to Primary 2 stage, and longitudinally from entry to Primary 1 through to entry to Primary 4. For this same cohort on entry to Primary 2 through entry to Primary 4, Schools 1 and 3 ranked second and third respectively.
Discussion

A range of key findings emerged from the attainment and progress data gathered in the study. Firstly, in terms of attainment there was a range of evidence to show a differential effect between the controls and the intervention groups had emerged particularly for children in their first year of schooling.

The results from Investigation 1 showed that for the sample as a whole, on entry to Primary 2 after one year of schooling, there were highly significant gains for the Intervention group on the Alphabet test and the Burt Word Reading test. These findings were repeated when the sample was divided into the sub-groups of high and low percentage FME schools. It is worth speculating on why this differential effect between the attainment of the controls and the intervention children emerged particularly at entry to Primary 2.

One hypothesis is that the changes in practice associated with literacy teaching and curriculum content during the intervention may have had a particular impact on the children who were in their first year of schooling. The evidence from other data sets included teachers’ reports that they had placed a greater emphasis on teaching the alphabet and phonic principles during the Primary 1 year than they had done in the past. There was a consensus that letter-sound correspondence had been systematically taught, and that this had been done at a much faster pace than previously was the case.

Certainly, the classteachers’ claims that as a result of this new focus, children who took part in the intervention were more aware of letters and had increased alphabet knowledge were upheld by the test results for the whole sample on entry to Primary 2, which showed that the intervention group statistically outperformed the control on the Alphabet test.

Interestingly, the major changes reported, particularly by the Primary 1 teachers, in the methodology used in the teaching of writing, offer another possible explanation for the increased performance of the intervention group, in reading, on entry to Primary 2. Teachers reported that they had made use of the recommended strategy of encouraging children ‘to have a go’ at writing words by themselves. The finding of a subsequent increase in reading progress is consistent with other research where it was found that children who were encouraged to write
using invented spelling performed better on tests of reading at the end of their first year of schooling (Clarke, 1988; Santa and Holen, 1999).

As well as changes to curriculum content, headteachers and classteachers were unanimous in their reports that significantly more time had been spent on the teaching of literacy, particularly during the first year of the intervention. Classteachers believed that one of the factors that had facilitated this was the increased number of personnel, which included learning support teachers, working in the classroom. They claimed that this change in organisation had also allowed for increased time on task; provision of a wider range of activities; as well as offering increased opportunities to respond to the needs of small groups and individual pupils. These findings lend themselves to the possibility that the positive impact of the intervention on entry to the Primary 2 stage may be in some way related to the impact of these approaches. It may be the case that this was a particularly effective combination of strategies for children in their first year of school.

It is also important to note that at entry to Primary 3, for the sample as a whole, significant differences were also noted in performance on the Alphabet test in favour of the (96) intervention group; and, for the Burt Reading test the difference approached significance in favour of the children who had taken part in a year of intervention. The findings from the results of the sample as a whole suggest that in terms of making a difference to children’s reading performance the intervention had the most positive impact for children experiencing the first two years of school.

A possible interpretation of the finding that differences to reading attainment were noted particularly at entry to Primary 2 and, to an extent, on entry to Primary 3, rather than on entry to primary 4, draws on the literature which suggests that the early years of schooling are the optimum time to make a difference to reading (Becker and Gersten, 1982; Meyer, 1984; Slavin and Madden, 1989; Slavin, 1996). It is likely that for children on entry to Primary 4 the intervention they experienced should be viewed in terms of remediation rather than prevention: and remediation of reading difficulties at later stages in the primary school has been found to be less effective than preventative intervention with children in the first two years of schooling (Kennedy et al, 1986; Juel 1988).
When the sample was studied in terms of the individual schools in the study, the results showed a varied pattern of impact in terms of the primary stage where significant differences in the performance of controls and intervention groups on literacy tests were noted. One explanation for this variation may be related to individual 'teacher effect' on the classes they taught, a phenomenon that has been well documented in other research studies (Barr, 1984; Adams, 1990; Hoffman, 1991).

An interesting finding related to individual school's attainment results came from the longitudinal phase of the study in Investigation 1. Here the pattern of significant results in favour of the intervention groups in School 1 and 3 is noteworthy. These are the only two schools where the longitudinal data point to superior performance by intervention children three years on from the start of the study. Children in the (98) intervention group were significantly advanced on the Burt Word Reading test compared to the (95) control group at entry to Primary 4. Moreover, for School 1 the same pattern of significantly better performance by the (98) intervention group was also found on the Burt Inglis spelling test at entry to Primary 4.

Clearly, the significantly advanced performance of the (98) intervention groups on entry to Primary 4 was a notable finding considering what is known about a tendency for intervention projects not to have lasting effects on attainment (Becker and Gersten, 1982; Natriello, et al., 1990). It is, therefore, important to consider the possible explanations for the differential pattern of attainment found in these two schools.

In terms of future literacy attainment many studies point to the importance of the first years of schooling. It is claimed that achieving early success in reading is crucial in order to prevent loss of self-esteem, motivation and enthusiasm for the task (Butkowsky and Willows, 1980; Slavin et al. 1992/93). In terms of this study, the positive impact of the intervention on literacy attainment during the first year of schooling may have been an important factor in explaining the sustained gains in attainment made by the (98) intervention groups in these two schools. Put simply, the significantly better start in their literacy learning that the (95) intervention children made, compared to the controls, might explain the significantly better follow-through literacy attainment of (98) intervention children on entry to Primary 4.
Associated with the test scores from these two schools an interesting source of triangulation was found with the qualitative data gathered from the classteacher interviews and diaries. The two teachers working with the classes where there were significant differences between the intervention and control group on entry to Primary 2, were, the only teachers who stated explicitly that they believed the reading attainment of their classes was advanced compared to classes at the same stage, which they had taught in the past. They offered these assessments during interviews and in their diaries, before the intervention group had been tested.

To turn now to the findings related to socio-economic status in terms of the school group attended. When the sample was divided into two sub-groups, on the basis of the level of percentage FME in the schools, it was found that there were contextual effects on attainment associated with the socio-economic status (SES) of the school groups. There was a consistent pattern of children from School Group 1 (high FME) having lower average mean scores on all literacy measures. There was no indication that the children in School Group 1 caught up with their more advantaged peers. However, it is noteworthy that in terms of spelling the (96) intervention children in School Group 1 were significantly advanced compared to the (95) controls on entry to Primary 4 and there was also a trend towards significantly better performance noted at the Primary 3 stage. In terms of the reading attainment of children who attended School Group 1, again the intervention group had significantly better attainment at the Primary 2 stage than the controls, and, at Primary 3, there was a trend towards significance. These are important findings which suggest that, albeit in the short term, involvement in the intervention project had a positive impact on the literacy attainment of children in schools with a high percentage of children with free meal entitlement. It is worth noting that involvement in the intervention did not have a negative impact on the School Group 1 children in terms of a fall in their attainment. These finding contrast with other studies, which have investigated interventions in the form of setting or streaming, where the lower ability groups often showed a fall in attainment while the higher ability groups have shown a rise (Barker-Lunn, 1970; Dreeben and Barr, 1988).

To turn now to the impact of children’s personal free meal entitlement. In terms of the socio-economic status of the School Group attended, the results for entry to Primary 2 showed that
regardless of whether the children attended a school in the group with relatively higher percentage FME or lower FME the intervention had a more positive impact on the children who were not entitled to FME in comparison with their less advantaged peers. In both School Groups there was a widening of the gap between the reading attainment of the children who had FME and those who did not.

There was a striking difference in performance between children who had FME and attended the School Group where a high percentage of the children also had FME; and children who did not have FME and attended a School Group where a low percentage of children have FME. This finding corroborates the results of a range of studies that have shown that the level of socio-economic disadvantage of the school, as well that of the individual child, impacts on attainment levels (Slavin and Madden, 1989; Paterson, 1991; Garner and Raudenbush, 1991; Puma et al, 1997, cited in Taylor et al., 1999).

Focusing now on the impact of the personal FME of Primary 2 children across the cluster as a whole. A key finding at this stage of schooling was that there was an interaction between the variables related to free meal entitlement and membership of treatment group (intervention or control). In terms of children’s scores on the Burt Word Reading test (BRT) there was a positive interaction between being in the intervention group and not having free meals. There was a widening gap for the Primary 2 intervention group between the BRT scores of children with no FME and the BRT scores of their less advantaged peers. The interaction variation demonstrated, pointed to the two influences of treatment group and FME acting together and shows how they jointly affected the BRT score.

At entry to the Primary 2 stage, although both the FME and No FME intervention children had significantly increased their scores, involvement in the intervention was found to have widened, rather than closed the gap in reading attainment between less advantaged children and their more advantaged peers. Both headteachers and classteachers, had identified this phenomenon during the interviews. One participant described it as, “the wider difference between the haves and the have-nots, the cans and the can-nots.”
However, it is important to emphasise that this was not a case of the ‘Matthew Effect’ in reading, identified by Stanovich (1986), which results in ‘rich-get-richer and poor-get-poorer patterns of achievement’ (p.360). In this study while there was a widening gap between less advantaged children and their more advantaged peers, at entry to the Primary 2 stage, both the FME and the No FME intervention children had significantly increased their scores.

A further analysis that compared the predictors of attainment on entry to Primary 2 showed that the SES of the school group attended was a predictor for both intervention and control children. However there were also differences between the intervention and the control group. For the intervention children not having free meal entitlement was a predictor of higher attainment, but this was not a predictor for the control children. This was the only stage that this differential associated with personal FME and attainment emerged.

In terms of progress, while there was no control group to compare with the intervention group it was interesting to note that the predictor which had the most negative impact on children’s literacy progress from entry to Primary 1 to entry to Primary 2, in the first year of schooling, was associated with FME. Children who had FME, on average, made significantly less progress than their more advantaged peers with the same pre-test score. None of the other progress data from the other year groups studied revealed a similar finding. In all the other year groups studied, while children who had free meal entitlement did not catch up, they held their own in terms of the progress made with their more advantaged peers with the same pre-test scores.

It may be that research on the early literacy experiences of young children can shed some light on the findings discussed above. Studies show that children from socially disadvantaged backgrounds spend less time in their pre-school years involved in literacy related activities, and have less access to, and fewer experiences with books than their more advantaged peers (Heath, 1982; Teale, 1986; Wells, 1987; Snow et al., 1998). Moreover, the type of literacy and language activities in which they are involved may not be in line with, nor resemble those undertaken and valued in school (Adams, 1990; Baker et al., 1995).

These findings may, in part, explain the differential impact of the intervention on the two groups of children. One hypothesis for the more positive impact of the intervention on the more socially
advantaged children during their first year of schooling is that these children may well have started school with a wealth of literacy experience and knowledge that helped them to have a better understanding and make better use of the learning opportunities offered by the intervention, compared with their less advantaged peers. Moreover, it is possible that their preschool literacy experiences were more in line with those offered and valued in the primary school setting.

It is argued that children begin the process of becoming literate long before formal schooling instruction begins, and that learning to read and write should be viewed as a continuum of literacy development that starts from birth (Teale and Sulzby, 1986). The findings from this study lend themselves to the possibility that children may need to have reached a certain point in this literacy continuum to benefit from the intervention. It may be that the children living in poverty were less likely than the children not living in poverty to have reached the stage of development in their literacy acquisition at which the intervention could start to benefit them.

Continuing with this argument, it may have been that after the first year of schooling most children had reached the point in their literacy development where the intervention was potentially of benefit and this may go some way to explaining the more or less parallel progress made by FME and No FME children during Primary 2 and Primary 3 after the divergence in Primary 1.

The part of the analysis that explored the factors affecting literacy skills on entry to Primary 1 showed that the two most important predictors of the literacy attainment of Primary 1 school entrants were associated with socio-economic status. Children with a free meal entitlement and children who attended a school in the school group where a high percentage of other children also had FME had, on average, significantly lower literacy attainment when they started school.

The differential in the baseline scores of socially disadvantaged children on entry to school would seem to have major implications for the nature of instruction at the Primary 1 stage. It would seem that there is a need for systematically differentiated approaches to literacy intervention in the first year of schooling if the educational needs of individual children are to be addressed effectively. Thorough and accurate assessment measures of children's stage of
literacy development are needed, and arguably should be part of future staff development programmes. The findings associated with differential in the baseline scores of children who were socio-economic disadvantaged, suggest that focused, developmentally appropriate support for the children most at risk of literacy failure should be available during the first year of schooling and beyond. Interestingly, a recent national report on intervention claims that focused support for children in the most disadvantaged schools can be a successful strategy (Fraser et al., 2001).

An examination of the gender factor showed that from entry Primary 1 through to entry Primary 4 girls made significantly better progress than boys, controlling for other variables including free meal entitlement and age on entry. This is an important finding because in Scotland, while there are studies that show that better attainment in literacy in the early years of schooling favours girls, there is a paucity of longitudinal studies that have studied progress in literacy in the early years (see Croxford, 1999 and Croxford and Sharp, 2000, for examples of progress studies in the first year of schooling). In a recent major study of gender and pupil performance in Scottish schools, Tinklin and colleagues (2001) argue that it is only very recently that the focus of concern about gender differences has started to focus on the Primary stages.

To turn now to a discussion of the impact of school attended on progress. Scrutiny of the progress made by the intervention children during the first year in the study reveals a varied pattern of progress between schools for the different primary stages. It is of interest to focus on the longitudinal findings, in other words, to follow through the children who entered Primary 1 at the start of the intervention and entered Primary 4 at the end of the study. Cautious claims can be made about Schools 1 and 3 standing out in terms of the consistently high ranking progress (as measured by standardised beta values) made by children in these two schools over the three years that data were gathered. Schools 1 and 3 ranked first and second for progress over both the first year of intervention on entry to Primary 1 through entry to Primary 2, and longitudinally, over three years from entry Primary 1 through entry Primary 4. For entry Primary 2 to entry Primary 4 they ranked second and third.

These were also the only two schools where the longitudinal attainment data gathered in Investigation 1 pointed to significantly superior performance by intervention children three years on from the start of the study. It is important to highlight that these two schools were at opposite
poles on measures of FME entitlement. The results from School 1 were particularly important as it had one of the highest FME ratings in the study.

Clearly any attempt to explain these findings can be merely speculative because of the complex interaction amongst the range of variables impacting on pupil attainment and progress. While recognising that no causal claims can be made, arguably it is appropriate to highlight the following information from other data sets gathered, which may cast some additional light on these findings.

Schools 1 and 3 were two schools from a group of three where themes, which did not emerge from data in the other study schools, were identified by classteachers and headteachers. (School 6 was the third school in this group and, in terms of progress, ranked third on entry to Primary 1 through entry to Primary 2.) Classteachers in these schools made particular claims about the intervention's impact on their approach to literacy instruction. These included claims of having initiated strategies that were aimed at developing children's metacognition in relation to literacy; and of using a more explicit approach to literacy teaching. Moreover, in terms of the intervention's impact on children, they reported that children were demonstrating an awareness of, and disposition to use, the reading and writing strategies which had been taught; and that children were making the link between what they were being taught and becoming readers and writers. These claims were spontaneously corroborated by comments made by their headteachers in individual interviews. When the perceptions of children who had experienced the intervention during their first year of schooling were explored, further evidence emerged that increased the validity of the classteachers claims (see Chapter 8).

It may be that the particular teaching approaches that emerged in these schools during the intervention encouraged the development of children's metacognitive understanding of the processes and purposes underpinning their literacy learning. The findings discussed in detail in Chapter 8, which showed that young children were actively involved in trying to make sense of their literacy instruction and were clearly capable of understanding the utility of strategies they had been taught, point to the potential in future intervention projects of placing a greater emphasis on harnessing the metacognitive capabilities of the young children involved. Encouraging young children's metacognitive capacity may well create a particularly powerful base for literacy teaching and learning. Further work, which is outwith the limits of this study, is required to test this hypothesis.
CHAPTER 10

THE CONTINUATION PHASE

PARTICIPANTS' PERCEPTIONS OF THE IMPACT OF THE INTERVENTION

THE QUESTIONNAIRE SURVEY

The questionnaire survey was conducted during the second year of the project (see timeline of the study in Chapter 2). The aims were to gather longitudinal data across all the teaching target population as they entered the continuation phase and to get an overview of the impact of the intervention across the cluster, rather than at individual school level.

Different questionnaires were devised for Primary 1-3, Primary 4-7, and learning support teachers, although many questions were common to all three (Appendix 12, A-C). The size of the target group, which numbered 51, was manageable in terms of data analysis so many open questions were asked. The questionnaires had a mixture of closed and open questions, and rating scales.

The design meant that it was possible to stratify the target population for the purpose of exploring contrasts and similarities in the views of Primary 1-3, Primary 4-7 and learning support teachers. The design also facilitated the presentation of a general summary of the cluster as a whole. In many cases straightforward frequencies were used to do this.

The respondents were informed that they should complete the questionnaire anonymously. It was hoped that this would encourage people to be more honest in their responses, thus increasing the validity and reliability of the findings.

Data were sought on participants’ perceptions of the impact of the project on a range of areas, including: classroom practice; beliefs about literacy teaching; and children’s literacy progress. The questionnaire also requested a range of descriptive information such as information about the number and type of personnel working in classrooms. In devising the questionnaires, themes
that had emerged from the analysis of the interview data (gathered in the first year) were used as a basis for further exploration in the second year.

There is a consensus amongst researchers about the importance of piloting questionnaires (Oppenheim, 1992; Cohen, et al., 2000) and so large-scale piloting was carried out in a primary school in the same local authority as the study schools (see Appendix 13). This school provided a similar population in which to trial the questionnaires: the aim being ‘to simulate the real thing as closely as possible’ (Munn and Drever, 1996). Ambiguities in wording or any difficulties encountered were noted. Feedback was gained about the validity of the questionnaire items in terms of participants’ understanding of the purposes of the research (Cohen, et al., 2000).

Distribution and Return of Questionnaires

Every effort was made to standardise the conditions in which the respondents completed the questionnaires. The questionnaires were distributed at an in-service session and were completed on the spot. This strategy aimed to maximise the response rate by giving participants time to complete the questionnaire during their working day. Table 10.1 details the response rate. The high percentage of returns may be partly explained by the provision of dedicated time explained above.

Survey Response Rate

The overall response rate by Primary 1-7 teachers was 67% (see Table 10.1). Stratification of the sample demonstrated that 75% of Primary 1-3 teachers returned questionnaires compared to 62% of Primary 4-7 teachers. This difference is not surprising given that the major focus of the intervention was the early stages. It is, perhaps, the high return rate by upper stage teachers that is particularly noteworthy. It may be that this was connected with the emphasis on a whole school approach to implementation adopted in the project.
Table 10.1: Summary of questionnaire returns

<table>
<thead>
<tr>
<th></th>
<th>Total Issued</th>
<th>% Returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1-3 Teachers</td>
<td>24</td>
<td>75</td>
</tr>
<tr>
<td>P4-7 Teachers</td>
<td>21</td>
<td>62</td>
</tr>
<tr>
<td>Learning Support Teachers</td>
<td>6</td>
<td>50</td>
</tr>
<tr>
<td>P1-3 and P4-7 and LS Teachers</td>
<td>51</td>
<td>67</td>
</tr>
</tbody>
</table>

Framework for Data Analysis

Three main stages were undertaken in the questionnaire analysis (Munn and Drever, 1996). In the first stages of data preparation a grid system was used to chart the respondents’ replies. For closed questions and rating scales straightforward frequencies were used. Responses to open-ended questions were coded in categories derived from the data. Reliability of these categories was tested by involving a colleague and the researcher independently coding a sample of questionnaires. The categories and coding scheme were described to the colleague, who worked through a sample of the questionnaires, coding the replies. The inter-rater agreement between the two coders was 92%.

During the second stage of the analysis the data were described and finally the data were interpreted in the context of the other data sets gathered as part of the study.

The Questionnaire Findings

Availability of Support in the Classroom

Table 10.2 summarises teachers responses when asked to indicate the year when they had most adult support in the classroom. A clear majority of the Primary 1-3 teachers selected the second year, whereas, Primary 4-7 were almost equally divided in their choice of Year 1, Year 2 and No difference. None of the Primary 4-7 teachers selected the pre-intervention year as the time when they had most help, even though a theme emerging from the interview data was that the upper school had ‘lost out’ in terms of support during the project.
Table 10.2: Class teachers' perceptions of the year when they had most extra adult support in class

<table>
<thead>
<tr>
<th>Year</th>
<th>P1 – 3 Teachers selecting n=(18)</th>
<th>P 4 – 7 Teachers selecting n=(13)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Intervention</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Year 1 Intervention</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Year 2 Intervention</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>No difference/Same</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Both groups were asked to list the different types of support available to them, before, and during the intervention; as well as detailing the hours per week. Tables 10.3 and 10.4 summarise the information. Noteworthy, was the range of personnel working with both groups of teachers by the second year. However, most striking was the increase in the total mean number of hours of extra support at Primary 1-3. During the first and second years, the total mean number of hours of extra adult support amounted to more than a third of the 22.5 hours of weekly teacher class contact time legislated for in the early years of schooling.

Table 10.3: Adult support in class at P1-3 stage: mean number of hours in class per week

<table>
<thead>
<tr>
<th>Year</th>
<th>Nursery Nurse</th>
<th>Learning Support</th>
<th>Parents</th>
<th>Home Link</th>
<th>Promoted Staff</th>
<th>Special Needs Auxiliary</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Intervention¹</td>
<td>0</td>
<td>1.19</td>
<td>0</td>
<td>0</td>
<td>0.15</td>
<td>0.6</td>
<td>0</td>
<td>1.96</td>
</tr>
<tr>
<td>Year 1 Intervention²</td>
<td>2.25</td>
<td>2.66</td>
<td>0.16</td>
<td>0.11</td>
<td>0.72</td>
<td>0.55</td>
<td>0.97</td>
<td>7.44</td>
</tr>
<tr>
<td>Year 2 Intervention³</td>
<td>2.97</td>
<td>2.66</td>
<td>0.72</td>
<td>0.44</td>
<td>0.55</td>
<td>1.03</td>
<td>0.53</td>
<td>8.92</td>
</tr>
</tbody>
</table>

Note 1: Number of classes = 13
Note 2: Number of classes = 17
Note 3: Number of classes = 18

Table 10.4: Adult support in class at P4-7 stage: mean number of hours in class per week

<table>
<thead>
<tr>
<th>Year</th>
<th>Nursery Nurse</th>
<th>Learning Support</th>
<th>Parents</th>
<th>Home Link</th>
<th>Promoted Staff</th>
<th>Special Needs Auxiliary</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Intervention¹</td>
<td>0</td>
<td>0.61</td>
<td>0.11</td>
<td>0</td>
<td>0.33</td>
<td>1.11</td>
<td>0</td>
<td>2.16</td>
</tr>
<tr>
<td>Year 1 Intervention²</td>
<td>0</td>
<td>0.5</td>
<td>0.17</td>
<td>0</td>
<td>0.88</td>
<td>0.42</td>
<td>0.08</td>
<td>2.04</td>
</tr>
<tr>
<td>Year 2 Intervention³</td>
<td>0.08</td>
<td>0.88</td>
<td>0.31</td>
<td>0.04</td>
<td>0.46</td>
<td>1.65</td>
<td>0.15</td>
<td>3.58</td>
</tr>
</tbody>
</table>

Note 1: Number of classes = 9
Note 2: Number of classes = 12
Note 3: Number of classes = 13
Learning Support Provision

Tables 10.5 and 10.6 summarise both groups of teachers’ reports of the availability of learning support provision before and during the intervention. Table 10.5 demonstrates the striking increase in the deployment of learning support provision at the Primary 1-3 stage.

**Table 10.5: Availability of learning support provision in P1-3 classes**

<table>
<thead>
<tr>
<th>Year</th>
<th>n=( )</th>
<th>%Yes</th>
<th>%No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Intervention</td>
<td>13</td>
<td>46</td>
<td>54</td>
</tr>
<tr>
<td>Year 1 Intervention</td>
<td>18</td>
<td>89</td>
<td>11</td>
</tr>
<tr>
<td>Year 2 Intervention</td>
<td>18</td>
<td>83</td>
<td>17</td>
</tr>
</tbody>
</table>

Table 10.6 shows the decrease in Year 1 learning support provision reported by the Primary 4-7 teachers. However, interestingly, in the second year they reported an increase in provision from their original pre-intervention level.

**Table 10.6: Availability of learning support provision in P4-7 classes**

<table>
<thead>
<tr>
<th>Year</th>
<th>n=( )</th>
<th>%Yes</th>
<th>% No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Intervention</td>
<td>9</td>
<td>33</td>
<td>67</td>
</tr>
<tr>
<td>Year 1 Intervention</td>
<td>12</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>Year 2 Intervention</td>
<td>13</td>
<td>46</td>
<td>54</td>
</tr>
</tbody>
</table>

All Primary 4-7 teachers believed that the Primary 1-3 stage had been allocated more learning support time during the intervention. There was unanimous support for this redeployment of provision. However, five supported the increase unreservedly, but eight indicated their support and then introduced some cautionary points. Those who stated ‘unreserved support’ all expressed confidence in the strategy. Arguments offered in favour included: the belief that children were more motivated to learn in the early years; that this increased focus allowed the basics to be taught more thoroughly; and that early intervention would have ‘beneficial spin offs
in the long run'. The others, while acknowledging the positive impact for younger children, believed there had been a negative impact on children ‘up the school’. They felt that the ‘poorest children’ were falling further behind and that this had caused ‘a widening gap’ between pupils. They stressed their feelings of ‘frustration’ and ‘anxiety’ about this situation.

Nursery Nurse Provision and Availability of Promoted Staff

The marked increase in nursery nurses and promoted staff working in Primary 1-3 classrooms is strikingly demonstrated in Table 10.7 and 10.8. Nursery nurse availability increased from none to almost two thirds of classes having this provision. By the second year, half the Primary 1-3 teachers reported that promoted staff were working in classrooms.

Table 10.7: Nursery nurse provision in P1-3 classes

<table>
<thead>
<tr>
<th>Year</th>
<th>n=( )</th>
<th>%Yes</th>
<th>% No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Intervention</td>
<td>13</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Year 1 Intervention</td>
<td>18</td>
<td>39</td>
<td>61</td>
</tr>
<tr>
<td>Year 2 Intervention</td>
<td>18</td>
<td>61</td>
<td>39</td>
</tr>
</tbody>
</table>

Table 10.8: Assistance by promoted staff in P1-3 classes

<table>
<thead>
<tr>
<th>Year</th>
<th>n=( )</th>
<th>%Yes</th>
<th>% No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Intervention</td>
<td>13</td>
<td>15</td>
<td>85</td>
</tr>
<tr>
<td>Year 1 Intervention</td>
<td>18</td>
<td>28</td>
<td>72</td>
</tr>
<tr>
<td>Year 2 Intervention</td>
<td>18</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

Table 10.9 shows that at Primary 4-7 there was some increase in assistance from promoted staff during the first year, however, by the second the level had returned to much the same as that reported for the pre-intervention year.
Table 10.9: Assistance by promoted staff in P4-7 classes

<table>
<thead>
<tr>
<th>Year</th>
<th>n = ( )</th>
<th>% Yes</th>
<th>% No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Intervention</td>
<td>9</td>
<td>22</td>
<td>78</td>
</tr>
<tr>
<td>Year 1 Intervention</td>
<td>12</td>
<td>33</td>
<td>67</td>
</tr>
<tr>
<td>Year 2 Intervention</td>
<td>13</td>
<td>23</td>
<td>77</td>
</tr>
</tbody>
</table>

Advantages and Disadvantages of Other Adults Working in the Classroom

Primary 1-3 teachers were asked to identify the three main benefits of having other adults working with them. Table 10.10 shows the responses to this open question. Almost all believed that because of the extra adults they had been able to spend more time hearing children reading. Half indicated that they had also found ‘more time to develop children’s independent writing’ and five reported an increase in the range of literacy activities. These three benefits all refer specifically to literacy instruction. However, it is noteworthy that the overall emphasis relates to the positive impact on a range of wider issues connected with teaching and learning. For example, over two thirds commented on the increase in the quality of the time that was spent with the pupils.

Table 10.10: The three main benefits of having other adults working in the Primary 1-3 classrooms

<table>
<thead>
<tr>
<th>Categories</th>
<th>Number of Teachers Mentioning n=(18)</th>
</tr>
</thead>
<tbody>
<tr>
<td>More time to hear children reading</td>
<td>16</td>
</tr>
<tr>
<td>Increase in the quality of the time spent with groups of children</td>
<td>13</td>
</tr>
<tr>
<td>More opportunities to focus on the needs of small groups or individuals</td>
<td>11</td>
</tr>
<tr>
<td>Class management made easier</td>
<td>9</td>
</tr>
<tr>
<td>Benefit for teacher of involvement in collaborative work</td>
<td>9</td>
</tr>
<tr>
<td>More time to work with children on independent writing</td>
<td>9</td>
</tr>
<tr>
<td>Benefits for the children of working with different adults</td>
<td>8</td>
</tr>
<tr>
<td>Children on task for longer periods of time</td>
<td>6</td>
</tr>
<tr>
<td>Possibility of increasing the range of literacy activities available to children</td>
<td>5</td>
</tr>
<tr>
<td>Improved pupil behaviour</td>
<td>3</td>
</tr>
</tbody>
</table>

Opportunities for more focused work with small groups and individuals was cited in almost two thirds of the questionnaires. Respondents reported having more time to give children individual
attention and more time to help to those experiencing difficulties. Half felt that another adult in the classroom supported class management in terms of the organisation of teaching and learning.

Six teachers considered that children were ‘on task for longer periods of time’. They believed that a ‘lower adult-child ratio’ promoted ‘greater concentration’ and three mentioned an improvement in children’s behaviour. Half expressed satisfaction with having the opportunity to work with other adults and noted the benefits of collaborative work. Some advantages were:

- Sharing the workload and experience, so greater support with teaching.
- Discussing ideas, concerns and achievements.
- Planning, assessment, worries, encouragement, motivation and laughs.

Interestingly, almost half highlighted advantages for children in having ‘exposure to different adults.’ The reasons for this included: children benefiting from different styles of teaching; different adults providing children with different challenges; and teachers having different levels of success with different children.

Table 10.11 shows the responses when Primary 1-3 teachers were asked to list the three main disadvantages of having other adults in the classroom. Half stated that there were no disadvantages, with one teacher adding pointedly, ‘apart from the sense of loss when they are not there.’

<table>
<thead>
<tr>
<th>Categories</th>
<th>Number of Teachers Mentioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stated that there were no disadvantages</td>
<td>9</td>
</tr>
<tr>
<td>Lack of liaison time</td>
<td>6</td>
</tr>
<tr>
<td>Adults not turning up</td>
<td>4</td>
</tr>
<tr>
<td>No response given</td>
<td>4</td>
</tr>
<tr>
<td>Difficulties with organisation</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 10.11: The three main disadvantages of having other adults working in the classroom

Only one teacher mentioned that organisation was more difficult. This is in marked contrast to findings from earlier points in the study when classteachers reported their anxieties about co-
ordinating the extra support. Conversely, four of the teachers complained that the problems arose, when, as one put it ‘the designated adults don’t turn up.’ They cited staff absences, ‘things cropping up’ and ‘school emergencies’ as factors that could disrupt their timetable of extra help and they expressed strong dissatisfaction with this happening. A third of the respondents, while citing the benefits of collaboration, identified the lack of liaison time as a disadvantage. Teachers felt that it was ‘the management’s’ responsibility to assign this time.

**Parental Involvement**

Thirteen of the eighteen teachers felt that parental involvement was ‘the same’ during the project, four thought it had been ‘more’, and there was one case of missing data. No changes were identified by the Primary 4-7 teachers. The learning support teachers concurred with this viewpoint but believed there had been some increase at the early stages.

**Changes to Practice**

Table 10.12 shows the recommendations from the project that Primary 1-3 teachers selected as new to their practice. Over half identified independent writing, work on analogies and the common word list.

Table 10.12: Recommendations for literacy teaching identified by teachers of P1-3 as being ‘new’ to their classroom practice with children at this stage.

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Number of teachers identifying as ‘new’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergent/independent writing</td>
<td>10</td>
</tr>
<tr>
<td>Work on analogies</td>
<td>9</td>
</tr>
<tr>
<td>Common word list</td>
<td>9</td>
</tr>
<tr>
<td>Alphabet names</td>
<td>6</td>
</tr>
<tr>
<td>Simultaneous oral spelling</td>
<td>4</td>
</tr>
<tr>
<td>Rhyming activities</td>
<td>3</td>
</tr>
<tr>
<td>Scribing for children</td>
<td>1</td>
</tr>
<tr>
<td>Copying</td>
<td>1</td>
</tr>
<tr>
<td>‘Hearing’ children reading</td>
<td>1</td>
</tr>
<tr>
<td>Alphabet sounds</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: n=(18), but respondents could tick as many recommendations as they wished.

290
When asked if there were other ways that they had changed their practice as a result of their involvement in the project the number of positive responses was striking: seventeen of the eighteen teachers, responded ‘yes,’ none responded ‘no,’ and there was one case of missing data. Table 10.13 shows the range of changes that were spontaneously identified.

Table 10.13: Other changes in practice identified by Primary 1 – 3 teachers

<table>
<thead>
<tr>
<th>Categories</th>
<th>Number of Teachers Mentioning</th>
<th>n=(18)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in time spent on literacy</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>More alphabet and phonic work</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Introduction of blocks of literacy work</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Increase in the amount of teaching</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Increase in whole class teaching</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Increase in formal spelling lessons</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Increase in oral phonic work</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Increase in explicit teaching methods</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Increase in enthusiasm for literacy teaching</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Note: n=(18), but could cite more than one change

Almost all reported an increase in time spent on literacy activities. Over half highlighted the increased focus on alphabet and phonic work, and a third noted a more formal approach to teaching spelling.

It is worth noting that a number of the changes to practice cited were not part of the original project recommendations. It may be assumed that these practices evolved during the implementation period. For example, there were mentions of an increase in whole class teaching; the introduction of blocks of time; and an increase in ‘explicit teaching’. As one said:

The teaching of literacy is much more explicit: children know why they’re doing what they’re doing. Much more direct teaching rather than supervision of activities.
When asked: 'Have you changed your organisation in any way as a result of your involvement in the project', again the number of positive responses is noteworthy: Seventeen of the eighteen Primary 1-3 teachers answered 'yes' and one gave no response. Table 10.14 gives a breakdown of the changes they described.

Table 10.14: Changes in organisation of the day resulting from involvement in the project

<table>
<thead>
<tr>
<th>Categories</th>
<th>Number of Teachers Mentioning n=(18)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blocks of time dedicated to literacy teaching and learning</td>
<td>12</td>
</tr>
<tr>
<td>Priority given to literacy in daily planning</td>
<td>11</td>
</tr>
<tr>
<td>Increase in whole class teaching</td>
<td>9</td>
</tr>
<tr>
<td>Timing of literacy teaching to coincide with extra adult support</td>
<td>9</td>
</tr>
</tbody>
</table>

Note: n=(18), but could cite more than one change

Most frequently mentioned was the introduction of blocks of time 'dedicated to literacy'. These were timetabled on a daily basis and lasted for about one hour. As one teacher described, strikingly:

Children are taught literacy activities, at the same time, in literacy blocks, one block per day. Integrated day out of window!

There were also frequent mentions about the 'priority' given to literacy in curriculum planning. Half claimed to have introduced more whole class teaching of literacy.

Table 10.15: Recommendations for literacy teaching identified by teachers of P4-7 as being 'new' to their classroom practice with children at this stage.

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Number of teachers identifying as 'new'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common word list</td>
<td>3</td>
</tr>
<tr>
<td>Copying</td>
<td>1</td>
</tr>
<tr>
<td>'Hearing' children reading</td>
<td>1</td>
</tr>
<tr>
<td>Rhyming activities</td>
<td>0</td>
</tr>
<tr>
<td>Work on analogies</td>
<td>0</td>
</tr>
<tr>
<td>Emergent/independent writing</td>
<td>0</td>
</tr>
<tr>
<td>Scribing for children</td>
<td>0</td>
</tr>
<tr>
<td>Alphabet sounds</td>
<td>0</td>
</tr>
<tr>
<td>Simultaneous oral spelling</td>
<td>0</td>
</tr>
<tr>
<td>Alphabet names</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: n=(13), but respondents could tick as many recommendations as they wished.
Table 10.15 shows that the majority of recommendations were already being used by Primary 4-7 teachers. Interestingly, when asked if there were any other changes eleven of the thirteen teachers responded ‘Yes,’ one responded ‘No,’ and there was one case of missing data. All who answered ‘Yes’ either reported that they were now ‘spending more time’ or placing a ‘greater emphasis’ on literacy teaching.

In terms of the learning support teachers, one said she had made no changes, while two believed that they had. One had experimented with a Reading Recovery type approach and the other had spent more time on ‘focused teaching’ of rhyme, analogy and common words.

**Time Spent on the Project’s Recommendations for Literacy Teaching**

Primary 1-3 teachers were asked to compare the time spent on each aspect of the programme with the time spent pre-intervention. Table 10.16 shows that a striking number reported an increase in the amount of time spent on these aspects of literacy teaching (except for ‘scribing’ where the advice they had been given was to reduce the emphasis).

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>More than before</th>
<th>The same</th>
<th>Less than before</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Hearing’ children reading</td>
<td>17</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Alphabet sounds</td>
<td>16</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Alphabet names</td>
<td>16</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Rhyming activities</td>
<td>15</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Work on analogies</td>
<td>15</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Emergent/independent writing</td>
<td>15</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Common word list</td>
<td>15</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Simultaneous oral spelling</td>
<td>11</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Copying</td>
<td>5</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Scribing for children</td>
<td>0</td>
<td>2</td>
<td>15</td>
</tr>
</tbody>
</table>

Note: 17 of the 18 P1-3 teachers who returned the questionnaires responded to this question.

293
The Most Effective Recommendation

With the exception of two, all Primary 1–3 teachers believed that either increasing the frequency and time spent on hearing reading, or encouraging independent writing had been the most effective recommendation. Seven reported that all recommendations were useful. When asked to name the least effective recommendation only three responded, citing different examples.

With the exception of two, all Primary 4-7 teachers believed that increasing the frequency and time spent on hearing reading was the most effective recommendation. Almost half felt that work on analogies had been effective in developing spelling. When asked to name the least effective recommendation only one responded, saying ‘all had been valued’.

The learning support teachers identified: encouraging independent writing; hearing reading every day; and teaching the common words as the most effective recommendations. One respondent echoed a theme that had emerged in other data sets gathered from learning support teachers: she claimed to have been using all the strategies in her teaching prior to the intervention. However she believed that:

The benefits came when all of these strategies were systematically taught in the classroom thus doubling the effect.

The Most Successful Resources

Primary 1-3 teachers mentioned magnetic letters and the alphabet mat most frequently. The responses to this open question demonstrated that many were familiar with the recommended resource list. Almost half widened their responses to include what one teacher described as ‘the vital extra human resources.’ None of the participants responded when asked to identify the least successful resource

The learning support teachers identified plastic letters and rhyme and analogy games as the most successful.

Change of Views about How to Teach Reading

It is noteworthy that the majority of Primary 1-3 teachers responded ‘yes’ when asked whether during the intervention they had changed their views in any way about how to teach reading?
Fifteen, out of the eighteen teachers, responded 'yes,' and three responded 'no.' Table 10.17 shows the range of changes that were spontaneously identified.

Table 10.17: Changes in Primary 1-3 teachers’ views about how to teach reading

<table>
<thead>
<tr>
<th>Categories</th>
<th>Number of teachers mentioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in amount of time allocated to reading</td>
<td>12</td>
</tr>
<tr>
<td>Seeing the need for using a variety of strategies</td>
<td>9</td>
</tr>
<tr>
<td>Importance of learning common words</td>
<td>5</td>
</tr>
<tr>
<td>Importance of rhyme and onset work</td>
<td>4</td>
</tr>
<tr>
<td>Identifying links between reading and writing</td>
<td>3</td>
</tr>
<tr>
<td>Starting earlier with teaching reading</td>
<td>3</td>
</tr>
<tr>
<td>More structured approach to teaching reading</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: n=(18), but could cite more than one

Two thirds had changed their views about the amount of time allocated to teaching reading and believed that reading instruction should take place on a daily basis.

Interestingly, half described the need to use a variety of strategies when teaching children to read. Many made similar comments:

I now think there is no one way to approach it, a variety of strategies are needed. Different approaches work for different children.

A number described teaching and learning strategies that were either new to their repertoire, or had taken on a greater importance. Almost a third reported that they now believed that teaching the ‘common words’ was important. Three teachers mentioned ‘drawing children’s attention’ to the links between reading and writing.

Change of Views About How to Teach Writing

Primary 1-3 teachers were asked whether they had changed their views about how to teach writing. Again the response was striking: fifteen, out of the eighteen, responded ‘yes,’ and three responded ‘no’ They all made strikingly, similar comments when detailing the changes in their
belief: summed up by one teacher as 'now getting children to have a go at writing from the start'.

The strength of the wording when describing these changes to their beliefs was noteworthy. They highlighted the interrelationship between these changes and changes to their practice. The 'move away from just scribing' in the first year of schooling, and the new emphasis on independent writing was unanimously welcomed. In some cases there was sense of respondents engaging with ideas about children's writing development rather than just following the recommendation. As one said:

I would not do much scribing now at it 'turns them off' their own efforts. They become unwilling to accept their own spelling - they want it correct and will not try to spell for themselves!

The three teachers who reported no change to their views explained that the project recommendation was in line with previous beliefs about how children should be taught. However, they pointed out that the recommendation was not in line with school policy prior to the intervention.

When Primary 4-7 teachers were asked to indicate whether they had changed their views about how to teach reading the majority said they had. Nine out of the thirteen responded 'Yes,' and four responded 'No.' Changes spontaneously mentioned included: hearing reading more frequently; encouraging children to make use all their available strategies; and adopting some of the recommendations for teaching reading.

In terms of whether they had changed their views about how to teach writing, seven responded 'Yes,' and six responded 'No.' Changes included: seeing the benefits of encouraging children's independent writing; making children 'more aware of the patterns in words;' 'encouraging children's own observations about spelling and access to more 'strategies to use with lower ability children'.
Impact of the Project on Primary 1-3 Children's Progress in Reading, Writing and Print Awareness

Teachers were asked to rate the impact of the project on children's progress in reading, writing and print awareness using a scale of 1-5, where 1 indicates no progress and 5 indicates a significant impact. Table 10.18 shows that the majority selected high ratings for progress in reading and writing. Their positive views about children's reading progress were in contrast to the paucity of references made about this at earlier points the study. The most significant progress was in the category of 'print awareness', with two thirds claiming that the project had made a significant impact on this area. Perhaps the more general nature of this category contributed in some way to the strikingly positive response from teachers.

Table 10.18: Primary 1-3 teachers' perceptions of children's progress

<table>
<thead>
<tr>
<th>Rating</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Progress</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Writing Progress</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Print Awareness</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>12</td>
</tr>
</tbody>
</table>

n=(18)

Primary 4-7 teachers were also asked to rate the impact of the project on children's progress in reading and writing. Table 10.19 shows that the majority selected middle to high ratings for reading and writing. However, overall the Primary 4-7 teachers' ratings were less positive than their Primary 1-3 colleagues.

Table 10.19: Primary 4-7 teachers' perceptions of children's progress

<table>
<thead>
<tr>
<th>Rating</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Progress</td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Writing Progress</td>
<td>0</td>
<td>3</td>
<td>6</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

(n=13)
Table 10.20: Learning Support teachers’ perceptions of children’s progress

<table>
<thead>
<tr>
<th>Rating</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Progress</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Writing Progress</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

(n=3)

Table 10.20 shows that the learning support teachers rated children’s writing progress more positively than reading progress.

**Unexpected Outcomes**

When Primary 1-3 teachers were asked to describe any unexpected outcomes of the project nine responded and most described more than one. Table 10.21 shows that six thought the children’s motivation and enthusiasm for literacy activities had increased. Four believed that the emphasis on explicit teaching had developed. That children had a strong disposition to write and had made good progress was identified by seven teachers. One summed up the significance of this ‘discovery’.

The children’s desire and ability to write has far exceeded my expectations and previous experience.

Table 10.21: Unexpected outcomes reported by Primary 1-3 class teachers

<table>
<thead>
<tr>
<th>Categories</th>
<th>Number of teachers mentioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response given</td>
<td>9</td>
</tr>
<tr>
<td>Children’s progress in writing</td>
<td>7</td>
</tr>
<tr>
<td>Children’s increased enthusiasm for literacy activities</td>
<td>6</td>
</tr>
<tr>
<td>Evolving emphasis on explicit teaching</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: \( n = (18) \), but could cite more than one

Only three of the thirteen Primary 4-7 teachers responded to this question. Two responses were categorised as ‘increased pupil motivation’ and the third indicated level of expectation in terms of children’s capabilities.
Only one of the learning support teachers responded to this question. Her views seemed to corroborate those of classteachers. She felt that classteachers had started to share their expectations with the children; that this had increased children’s motivation to succeed; and that children were being encouraged ‘to think more.’

Value of Staff development Sessions for Primary 4-7 Teachers
The Primary 4-7 Teachers unanimously agreed that attendance at the staff development sessions had been very worthwhile. A range of arguments was offered to justify this opinion. Firstly, many stressed that it was important for everyone to know what was going on throughout the school. Secondly, the majority made a strong case for adopting ‘a whole-school approach to teaching and learning.’ They mentioned the importance of ‘continuity of practice and progression throughout the stages and they believed that the whole-school approach to staff development had helped to foster this. Thirdly, they almost all expressed satisfaction with the relevance and applicability of many of the recommendations and claimed to have ‘adapted and built’ on strategies for pupils ‘up the school’. Finally, they reported that movement of teachers between stages was common practice in many schools and because of this it was appropriate that everyone had taken part in the staff development.

Further Input on Early Literacy
Two themes emerged from the responses of the nine Primary 1-3 teachers who identified further input that would be helpful. Firstly, continued contact with the staff development team and secondly increased levels of resources. Possible content for staff development included: developing imaginative writing; follow-through strategies for older children; and ‘occasional revision of what we have already done’. Justifications for further input included: the need for continued support because of the high turnover of staff; the need to ‘keep the enthusiasm going’, which some felt could be facilitated by maintaining the contact with the development team; and the need for more advice on teaching strategies.

All mentions of further resource input referred specifically to human resources and only a couple wanted more ‘equipment and materials’. The desire to have more, or continued, extra help in the classroom was strongly emphasised.
Primary 4-7 teachers identified three areas for further input. Firstly, three requested a further review of the intervention 'results'. As one put it, we need a 'quantification of the developments' in literacy. Secondly, five requested follow-through teaching strategies for older children because sustaining any gains made at the early stages was seen as 'crucial'. Thirdly, some appealed for continued collaboration with other schools. And finally, learning support teachers all believed that increased levels of resources in terms of people and materials would be of most help.
Discussion

Analysis of the survey data corroborated findings from other data sets that different dimensions of change had occurred during the implementation of the intervention. At the teacher level the vast majority reported that they had changed their views about how to teach reading and writing. This finding is noteworthy in terms of what the literature reveals about practitioners' unwillingness or inability to alter their beliefs (Chall, 1983; Pinnell et al., 1994). A possible explanation for this finding is that the changes to teachers' beliefs may have been revealed because of the longitudinal nature of this study. It seemed that changes, occurring first at the level of teachers' practice and organisation, can lead to changes in beliefs (Huberman and Miles, 1984; Brandt, 1992). In this study there is a range of evidence to show that teachers altered their organisation and classroom practices. Arguably, the extended period of implementation allowed time for them to try out new practices and types of organisation, reach new understandings, and, importantly as many reported, perceive what they were doing to be successful in terms of promoting children's literacy skills. Classteachers' involvement in this process over an extended period of time may go some way to explaining the high incidence of reports of changes to beliefs.

While the majority of classteachers claimed to have changed their beliefs there was not a sense that involvement in the intervention had restricted their views and their practice. For example, half of the Primary 1-3 classteachers stressed the need for a differentiated approach to implementation, and held strong beliefs about the importance of the teacher using her professional judgement to select appropriate strategies to meet the needs of individual children. Similarly, while most upper school teachers also claimed to have changed their views about how to teach reading, each cited different examples of what this meant in practice. There was evidence of professional reflection at an individual level, and it seems that teachers had adopted and developed the approaches to suit the needs of the children in their own classes.

A striking finding was that over half the Primary 1-3 classteachers reported 'discovering something new' about children's disposition to write at a much earlier stage than they had previously thought possible. Related to this were reports of teachers having higher expectations of children; this reflected findings from earlier points in the study, and was important, because as well as teachers' beliefs about practice, their high or low expectations about children's
capabilities are considered to be a crucial factor that can impact upon children's level of achievement and motivation (Louis and Miles, 1990; McCallum, 1999; Mortimore et al., 2000).

At the classroom level changes were apparent in terms of curriculum and instruction. These findings were of interest because of what is known about teachers' resistance to adopt new practices and approaches. Teachers claimed to be using most of the project recommendations, many of which they said were new to their practice. Of particular note, was the finding that they had made other changes to practice, most of which were not part of the project recommendations. Across the cluster of schools the similarities of the changes that had evolved in the Primary 1-3 classes during the implementation phase were striking. In terms of the Primary 4-7 teachers it seemed that their schools' involvement in the intervention had acted as a stimulus for them to try new approaches to literacy teaching.

In recent times, there has been a developing consensus about the importance of the classroom as the key focus for change in any improvement intervention (Slavin, 1997; Saunders, 2000), coupled with growing criticisms of earlier studies that have focused mainly on change at the level of structures and management (Gray et al., 1999; Harris and Hopkins, 2000). At the outset of this initiative the main focus of intervention was at classroom level in terms of attempts to introduce changes to curriculum and instruction. However, it was fascinating to discover that although this was the focus, a range of changes at the level of systems and structures had developed during the implementation.

Changes associated with systems and structures have been found to be important during the implementation phase and have been associated with success (Stoll and Fink, 1996). In this study some striking changes were found at this level, notably the increase in the range of personnel supporting literacy work. These findings raise a number of issues that merit further discussion. Firstly, in terms of teachers' perceptions of the benefits, the data suggest that teachers widely endorsed the support offered by helpers. Moreover, many saw even more human resource input as desirable. In contrast to data collected at an earlier point in the study, there were no concerns raised about working with others; the only difficulties arose from factors 'outwith' the classroom. Specifically, teachers mentioned the lack of time allocated for liaison and they clearly viewed the organisation of this as the responsibility of management. This
finding corroborates earlier studies that found that even when teachers were enthusiastic about working together they encountered difficulties (Nias et al., 1989) and that a lack of dedicated time can stand in the way of developing collaboration (Stoll and Fink, 1996). The classteachers comments confirmed what is known about the key role played by the headteacher in promoting the collaborative culture of the school by creating structures and systems that support teachers in their work and providing them with time that facilitates collaboration (Halsall, 1998). Interestingly, none of the classteachers offered any comment about promoted staff working in classes. In terms of headteachers gaining first hand knowledge and experience, it could be argued that this change to their role was a very positive development and demonstrated their support for the intervention. On the other hand, for the classteachers working alongside their headteachers this may have been a potentially challenging situation.

The recruitment of teams to work in classrooms as part of the efforts to progress children’s literacy acquisition could be viewed as an example of schools building capacity from within (Stoll, 1999; Harris and Hopkins, 2000; Harris and Young, 2000). However, the classteachers had received no training about how to co-ordinate the extra support and make best use of the varied expertise. Working collaboratively with volunteers, and professionals from different disciplines is likely to be a complex enterprise that demands a number of interpersonal and organisational skills. A comparison of the survey data with evidence gathered earlier suggested that classteachers had worked through the difficulties. Nevertheless, a strong recommendation for future interventions is that staff development is needed in this area. In terms of working with others, it was interesting that classteachers referred not only to positive aspects associated with literacy instruction, but also to broader aspects of teaching and learning. Moreover, they indicated that they valued the social interaction that had arisen during the collaborative work and showed that they had engaged in talk about their practice: an activity which has been identified as an important element in effective improvement initiatives (Hopkins and Harris, 1997).

Their responses suggested that they had reflected critically on the positive aspects of collaborative work. It could be argued that the evidence supports a recommendation for future interventions to build on inter-professional and volunteer partnerships, while recognising that within every school and, indeed within every class, there are likely to be different capacities for development (Hopkins and Harris, 1997; Dalin, 1998).
The extra learning support provision across the Primary 1-3 classes was particularly striking. This change to the deployment of personnel is worth mentioning in terms of the literature reviewed that reports a resistance to the widespread involvement of leaning support teachers at the earliest stages (Clay, 1993; SOEID, 1996). While both learning support and Primary 4-7 teachers’ comments suggested that they fully endorsed this change, there were notable concerns about the older children ‘missing out’ as a result. This theme emerged in many data sets gathered during the study. It is noteworthy that the perceptions of participants in this study corroborate the views of researchers who argue that focused intervention at only one stage in a child’s development is not the answer (Becker and Gersten, 1982; Slavin and Madden, 1989; Zigler, 1990). Moreover, it is important to note the advice offered by classteachers at both stages: they recommended that follow-through approaches and strategies to sustain any improvements made at the early stages should be included in future work.

The case put forward by Primary 4-7 teachers for the benefits of adopting a whole school approach to staff development were noteworthy because of the level of reflection that seemed to underpin their beliefs. They believed that this approach was crucial for promoting the implementation of the intervention: a viewpoint that is echoed in the recommendations emerging from other research (Fraser, 1996; Harris and Young, 2000).

The findings reviewed suggest that involvement in the intervention had impacted on the development of the schools’ internal capacities for change and development (Stoll, 1999). Notably, evidence of this was found in the range of developments that had evolved during the implementation and had not been specifically recommended. Evidence from the survey data corroborates many of the findings from earlier data sets and also offers some further insights about the process of implementing a school improvement intervention. There appears to be evidence to support cautious claims that participants’ involvement in the staff development, the process of implementation, as well as contact with outside support, were related to changes at the levels of children, teachers, classrooms and structures and systems. Importantly, school personnel seem to have been at the centre of these change processes and in some cases were leading them. The requests by some teachers for ongoing staff development, coupled with their recommendation that contact should be maintained with the external support, seems to offer
some promise for promoting a model of internal capacity development that is based on 'interactive professionalism' (Fullan, 1991).
CHAPTER 11
SUMMARY AND CONCLUSIONS

Analysis and discussion of the substantive findings have followed each of the preceding chapters. This final chapter brings together the main findings, draws out their implications for policy and practice and highlights their contribution to the knowledge bases of early intervention, school improvement and the management of change. Concise answers to the research questions are offered.

There was evidence to suggest that aspects of multi-level change had taken place during the intervention. According to participants' reports, change variously took place at the levels of: organisational structures and systems across the cluster and within schools; teachers' practices and beliefs; and children's literacy behaviour and attainment scores. On certain dimensions these changes occurred concurrently, while in others, changes at one level triggered changes at another. Moreover, some changes were planned for as part of the intervention, while others were unexpected, emerging as the dynamic of the intervention got underway.

Cluster Level

A key finding was the impact that cluster collaboration appeared to have had in strengthening individual headteacher's capacity for initiating changes to structures and systems within their schools. The headteachers believed that this capacity was further enhanced by the external support offered by the developers.

These findings have implications for the design of future improvement interventions. It may be that a model which involves collaboration between a cluster of schools and external agents is a particularly powerful combination that strengthens and supports individual headteachers' capacity for initiating and implementing change.

However, across the cluster there was evidence of differences in school contexts, as well as varied potential for change and improvement. This is consistent with findings from studies reviewed earlier and seems to support calls for differentiated approaches. It may be that a combination of cluster and school based activities are needed throughout the process. Evidence
from this study suggests that cluster collaboration is both an effective way to ‘jump-start’ an initiative and a strong support mechanism for the headteacher group. However, there was little evidence that teachers perceived the cluster collaboration to have impacted on their work. For them the school was where ‘the real action’ took place.

School Level

There was strong triangulation of evidence that involvement in the intervention had triggered changes at the level of systems and structures within the individual schools. The extent of the perceived impact was striking and included: recruitment of external support; initiation of inter-professional collaboration; instigation of cross-institution and whole-school staff development; reallocation of resources; redefining of roles; redeployment and employment of staff; reallocation of management time; initiation of increased collaboration within schools; timetable changes; changes to classroom organisation; changes to curriculum balance; and the creation of a new policy document.

Combinations of these changes are identified in the literature as likely to support improvement efforts. Noteworthy in this study were both the amount and the similarities of the changes identified amongst schools and the finding that many of these changes were not part of the original intervention recommendations, but had emerged as implementation progressed.

It is possible that certain key factors facilitated this intensive impact. Firstly, as discussed earlier, the particular combination of cluster collaboration and networking created a powerful framework that seems to have supported and promoted the change process. Secondly, the headteachers considered that the staff development sessions, as well as supporting changes to practice had facilitated changes at the level of systems and structures. Thirdly, the impact at classteacher level in terms of reports of increased professional dialogue and collaboration may have also triggered change.

The whole school involvement in the intervention was perceived as having been highly successful by all staff groupings. In particular, the involvement of the headteachers in the training sessions was viewed as crucial in terms of supporting and sanctioning changes to classroom practice and curriculum balance. A range of evidence from different data sets
suggested that school-wide involvement had focused attention on a review and development of literacy teaching and that participants were working towards the common goal of heightening children’s literacy attainment.

These findings may be important for a number of reasons. Firstly, it is possible that whole school approaches to intervention, which involve staff at all stages in literacy training and development work, might facilitate the provision of the type of follow-through approaches recommended for sustaining any early gains made by children. A whole-school approach has the potential to encourage consistency and continuity of approach to literacy instruction for children as they move through the stages. And finally, it offers a message that all teachers are teachers of reading.

The range of changes to systems and structures successfully initiated at cluster and school level sits well with the model of school improvement that facilitates schools building their own internal capacities for change and development (Stoll, 1999; Harris and Hopkins, 2000; Harris and Young, 2000). However, findings analysed in earlier chapters indicated that from the initiation stage it seemed that different schools had varied potential for coping with change, development and the implementation of the initiative.

This again raises the question of whether a school has to be at a certain stage of development before embarking on an improvement initiative, or can involvement in the process, in itself, develop and enhance a school’s internal capacity for change and development? Evidence collected during this longitudinal study suggests that the latter may be the case. While there were clear variations in the impact of the intervention on the development opportunities grasped in the different schools, the examples of multi-level impact identified across all six schools provide support for cautious claims that involvement in the intervention did release a dynamic for change.
Teacher Level

Theories and Beliefs

A key finding was the critical role played by ‘talk’. Teachers in all the schools discussed their teaching and there were reports of increased ‘professional dialogue.’ There were similar findings for the headteachers who, because of their involvement in the project, had ‘to talk education’.

One way that participants seemed to make sense of their work was by talking to each other and sharing experiences. Claims of increased communication between headteachers and their staff were also noted. This finding has implications for future interventions in terms of including opportunities and time for participants to develop their understandings in this way. It could be argued that headteachers and their staff need to examine practice, make sense of the changes and develop their understandings together.

As discussed, teachers in all the schools explicitly stated that talking to each other was often the way they ‘learnt things’. This theme was particularly evident in Schools 1, 3 and 6 where there was also the intriguing discovery of a ‘story telling culture’. It seemed that practitioners used ‘stories’ as a way of making sense of their own intuitive judgement and beliefs and to accommodate new theories into their understandings. They also used ‘stories,’ told as a group, to illustrate significant events, developments and issues associated with teaching and learning. This collective storytelling indicated their familiarity with each other’s tales. There was a strong sense that participants had constructed meaning through exchanging and discussing their stories.

This is an important finding as it identifies one way that teachers talk to each other about their professional practice and develop their understandings and theories. This finding has possible implications for the staff development component of programmes of literacy intervention. A potentially, powerful approach might be one that makes use of teachers’ literacy stories and offers teachers collaborative opportunities to deconstruct and reconstruct their meaning. Using teachers’ stories as a starting point has the potential to engage outside partners, such as developers and researchers, with the everyday life of schools and might go some way to answering calls for these partners to enhance their credibility by offering them opportunities to demonstrate their practical knowledge and their understanding of the significance of teachers’
stories. At the same time these stories might be used as tools to support the development of teachers' theoretical understandings.

In this study the findings seemed to indicate that the theoretical input of training sessions was mistimed and that more practical input was needed during the initiation stage. Evidence suggested that the practical utility of the theory only became apparent as the implementation phase progressed. It is possible that training may have been more effective if it had continued during this phase and been staged to begin with content and practical application, before leading on to an exploration of the evidence base and theory.

Classteachers initiated data collection as evidence to support any claims of children's progress and development. The literature reviewed highlights the role that data plays in offering participants feedback during improvement initiatives. The finding that teachers initiated this data collection has positive implications for the development of research partnerships with schools. The similarity of the type of data collected by teachers in different schools, which included examples of children's writing and conversations with children and parents, suggests the type of data that teachers view as applicable to their work.

*The 'Human Side' of Change*

Evidence from this study lends support to commentators who emphasise the need to recognise and respect the 'human side' of change (Evans, 1996; Stoll, 1999). Classteachers perceived themselves as members of a profession facing a range of pressures. Reports of increased anxiety and stress during the initial stages of implementation were consistent with other studies. However, noteworthy, was evidence to suggest a particular emotional involvement for classteachers associated with the process of teaching reading. There is little recognition or exploration of this in the literature. For individual classteachers, the impact of the intervention on the literacy achievement of children in their own class was of paramount importance and perceptions of whether this was positive or negative seemed to have a comparable emotional impact on the classteacher.

It is known that classroom innovations that involve a significant level of change are likely to be unsettling for teachers. However, the implementation of an intervention aimed specifically at
heightening reading attainment might trigger the added complexity of the type of teacher emotional involvement identified in this study. This hypothesis has implications for future literacy interventions. Any attempt at intervention must recognise the impact that this will have on the participants involved. Any special emotional involvement of teachers in this area of children’s learning should be acknowledged, respected, and taken account of when planning literacy interventions. The findings from this study suggest that the ‘human dimension’ seems to be an integral part of the process of teaching reading that exists alongside professional, systematic approaches to instruction.

The headteachers acknowledgement of the human side of implementing change was demonstrated in their commitment to offering not only professional, but also emotional support to their staff. This may be a key leadership role for headteachers during the implementation process and has implications for the design of future initiatives. Time allocation for support systems to function effectively is likely to be a main consideration as time pressures were a key concern of participants in this study.

Analysis of the data supports recent calls to develop teachers’ understanding of the change process (Dalin, 1998; Stoll, 1999). An important finding was that the headteachers, unlike their staff, seemed to have already made sense of many aspects of this change process. An effective strategy for future projects may be a focus on sharing with all stakeholders what is known about the change process with the aim of making the process of innovation as transparent as possible. Teachers who have developed some understanding about what this means in practical terms, may have a more realistic view of what to expect.

**Learning Support Teachers**

Participants viewed the redeployment of the learning support teachers as a key strategy. However, learning support teachers, while committed to the goal of early intervention, also appeared to have an understanding of ‘the bigger picture’ in terms of the needs of children at all stages. They voiced concerns that raise important ethical considerations about removing support from older children and using untrained professionals to work with children who have the most need of specialised help.
In terms of their role, there was a sense that their knowledge about literacy and their previous attempts at initiating intervention had not been fully acknowledged. The evidence pointed to a missed opportunity in utilising their whole school perspective and expertise in literacy teaching and has implications for future intervention initiatives in terms of developing the role of the learning support teacher.

**Teachers' Practice**

At the outset the main focus for change was at the level of classroom practice. A noteworthy finding was that across the cluster, involvement in the intervention appeared to have prompted a school-wide review of literacy practices. In all schools, classteachers claimed to have adopted a range of the project’s recommendations and made some changes to the methodology, content, and resources used in their literacy teaching. These claims are corroborated by data generated from different sources and methods, and gathered over time. These findings were of interest because of what is known about teachers’ resistance to adopt new practices and approaches. A range of factors may explain participants’ willingness. These include: their perceptions that the intervention was addressing a perceived need; their view of the positive utility of the initiative; the finding that some of the key strategies were in line with many of their previously held beliefs and in some cases removed perceived previous restrictions.

The most salient change to practice was the marked increase in the time spent on developing literacy and resulting decrease in time for other curricular areas. While there are powerful arguments to support an emphasis on literacy at the early stages, this finding clearly has important implications for teaching and learning across the curriculum and suggests a need for systems to be in place that monitor balance over the primary stages.

While the majority of classteachers claimed to have changed their beliefs, there was not a sense that involvement in the intervention had restricted their views and their practice. There was a belief in the need for a differentiated approach to implementation and strongly held views about the importance of teachers using their professional judgement to select strategies to meet the needs of individual children. This viewpoint fits well with the model of literacy intervention used in this study which aimed to offer teachers broad principles from the literacy knowledge-base to use in creating programmes of instruction appropriate to the needs of their schools.
However, different schools seemed to have different capacities for this type of development work. Some demonstrated higher levels of ownership and control in terms of implementation: particularly in Schools 1, 3 and 6 teachers built on the recommendations, initiated change and used opportunities for development as they arose during the implementation phase. Interestingly, participants in Schools 1, 3 and 6 believed that teachers and children were experiencing a ‘cycle of success’ and some offered this as an explanation for their increased confidence to use their professional judgement to adapt and develop strategies.

The finding that schools had different capacities for ownership and development suggests that as well as cluster activity, schools may have required differentiated support that continued during the implementation phase.

An example of the schools building their capacity for development was demonstrated in the recruitment of teams of professionals and volunteers to support literacy activities in the Primary 1-3 classes. A key finding was that a crucial advantage associated with extra personnel working in classrooms was the marked increase in opportunities for children to have individual and small group literacy instruction. This development had evolved during the implementation and was not planned for at the outset. This was a powerful example of how the dynamic of the initiative impacted at different levels and released new capacities and possibilities for systems which supported children’s literacy development. The literature reviewed emphasised the efficacy of one-to-one tuition. Wasik and Slavin (1993) argue that this approach can be particularly effective for children at risk of failing to read in the first year of schooling because it activities individual ‘cognitive and motivational’ processes. While no strong claims can be made that any of the reports of marked increases in motivation and metacognitive awareness amongst children were necessarily associated with the increased opportunities for individual and small group teaching, this more focused approach to instruction may have impacted positively on these processes.

**Child Level**

The statistical analysis of test results across the sample as a whole suggested that in terms of making a difference to children’s literacy attainment the intervention had the most positive impact for children, tested on entry to Primary 2, who had completed their first year of
schooling. One explanation for this is that the changes in practice associated with literacy teaching and curriculum content may have had a particular impact on the children at this stage. Evidence indicated that teachers had placed a greater emphasis on developing phonological and phonemic awareness during the Primary 1 year than they had done in the past. Classteachers reported that the increased number of personnel working in the classroom had had a major impact on teaching and learning. They believed that this had facilitated an increase in the frequency and time spent on literacy activities; the provision of a wider range of activities; and increased opportunities to respond to the needs of small groups and individual pupils. The positive impact of the intervention in terms of children's attainment on entry to Primary 2 may be in some way related to the impact of this particular combination of strategies.

Analysis of the test results when the sample was stratified according to socio-economic status corroborates findings of the literature reviewed that indicates that the level of socio-economic disadvantage of the school, as well as that of the individual child, impacts on attainment levels. Evidence from this study also offers new insights about the interrelationship of socio-economic disadvantage, literacy attainment and the impact of an intervention in the early years of schooling.

An examination of the factors affecting literacy skills on entry to Primary 1 showed that the two most important predictors of literacy attainment for school entrants were associated with socio-economic status. Children with a free meal entitlement and children who attended a school in the school group where a high percentage of other children also had free meal entitlement had, on average, significantly lower literacy attainment when they started school.

A key finding was that after one year of schooling, on entry to the Primary 2 stage, the intervention was found to have had a differential impact on the literacy attainment of children with a free meal entitlement and those who had not. Findings suggested that during their first year at school the more socio-economically advantaged children were more likely than their less advantaged peers to have benefited from involvement in the intervention. A key finding was that this differential impact of the intervention according to free meal entitlement was not found for any of the other year groups studied.
After a year of intervention, at entry to the Primary 2 stage, there was a widening gap between the less advantaged children and their more advantaged peers. However, it is important to note that although the intervention had a more positive impact on the more advantaged, both groups of intervention children significantly increased their scores.

The literature reviewed earlier identified the variation in children’s pre-school literacy experiences. This may go some way to offering an explanation for the differential impact of the intervention on the two groups of children during their first year of schooling. The more socio-economically advantaged children may well have started school with a wide range of literacy experiences and a wealth of knowledge that helped them to have a better understanding, and make better use of the learning opportunities offered by the intervention in comparison with their less advantaged peers. It is possible that children needed to have reached a certain point in the continuum of literacy learning to benefit from the intervention. It may be that the socio-economically disadvantaged children were less likely than their more advantaged peers to have reached the stage of development in their literacy acquisition at which the intervention could start to benefit them. Continuing with this argument, after one year of schooling most children might have reached the point in their literacy development where the intervention was potentially of benefit and this may go some way to explaining the more or less parallel progress made by both groups of children during Primary 2 and Primary 3 after the divergence in Primary 1.

It seems highly likely that the differential on entry to school in the baseline scores of socio-economically disadvantaged children and their more advantaged peers, coupled with the differential impact that the intervention had on the two groups has important implications for the nature of literacy intervention at the Primary 1 stage. The evidence suggests that there is a need for focused, developmentally appropriate support for socio-economically disadvantaged children most at risk of literacy failure. Thorough and accurate assessment measures of children’s stage of literacy development are required, as well as systematically differentiated approaches to literacy intervention that address the educational needs of individual children: whole class methods of intervention and instruction may not be effective. Small group and individual approaches facilitated by the recruitment of teams of personnel working within the classroom
setting, an approach initiated by schools in this study, appears to be a strategy worthy of development and further research.

More insights about the nature of developmentally appropriate intervention for children in the first year of schooling came from the data gathered from conversations with children in School 1, 3 and 6. This data offered valuable insights into children’s learning experiences in their first year of schooling. It demonstrated some triangulation of teachers’ reports of their literacy practice and offered some corroboration of participants’ views about the intervention’s impact on children’s literacy behaviour. Firstly, findings appeared to support participants’ beliefs that many children were making the link between the skills and strategies they had been taught and becoming readers and writers; secondly, that children were developing a sense of the utility of the various strategies and skills; and they also offered evidence of children’s motivation, and self-initiated involvement in literacy learning. Teachers claimed that changes to their practice, which included using a more explicit approach to literacy teaching and initiating strategies aimed at developing children’s metacognition in relation to literacy, helped to explain these changes in children’s literacy behaviour.

An intriguing finding was the evidence of children beginning to develop theories about literacy acquisition and demonstrating an awareness that learning to read and write was complex and challenging. The metacognitive process of ‘thinking about thinking’ (Jacob and Paris, 1987) is apparent in their accounts. Evidence from this study suggests that the children had a developing understanding of the purpose of their literacy instruction and the benefits of learning to read and write. These are important findings that seem to contradict a range of studies (detailed in chapter 8) which conclude that young children are unable to give meaningful explanations about the literacy process. The findings that young children were actively involved in trying to make sense of their literacy instruction and were capable of understanding the utility of strategies points to the importance, in future intervention projects, of a greater emphasis being placed on acknowledging and developing the metacognitive capability of the young children involved.

The children had high expectations of learning to read and write when they started school. An interesting finding was that many children had a fairly clear view of the important role their teacher played in this process. This mirrored the particular importance that their teachers
assigned to teaching literacy, particularly reading. There was evidence not only of teachers’ professional involvement and commitment, but also emotional involvement. It may be that in the first years of schooling the interrelationship of children’s expectations and teachers’ commitment is a potentially powerful combination for teaching and learning. This may be a key stage to take advantage of a possible dynamic around reading which, in this study seemed to exist between teacher and child.

The finding that many children held the strong belief that they would successfully acquire literacy skills was a powerful base for teaching and learning and suggests that early intervention initiatives should make full use of children’s positive expectations and motivation for the task. It adds further support to the argument that the first years of schooling are a critical stage for intervention and the targeting of resources.

This longitudinal study adopted a wide perspective on the issues under examination with a broad, more comprehensive approach to evaluation than is often found in studies of literacy intervention. The concern was to evaluate the multi-level impact of the intervention. The findings demonstrate the importance of the selection of methods used in the different levels of data collection. For example, the diary was a powerful method for gathering longitudinal data related to the ‘human side’ of change, teachers practice and beliefs. And, in response to claims that techniques used to gather data about children’s perceptions are often inappropriate, the researcher designed a method to facilitate an exploration of young children’s perceptions about their literacy acquisition.

Investigating children’s perceptions of the reading and writing process and their experiences of literacy learning during the intervention were not part of the original design but were studied because of unexpected themes emerging from the headteacher and classteacher data. On reflection, the main change the researcher would make to the original study design would be to have included this investigation from the outset. When the decision was taken to study the children’s perceptions the preferred action would have been to gather data from children attending all six schools, however this was not feasible because of time constraints.
A range of strategies discussed in Chapter 2 was used in an attempt to increase the validity and reliability of the findings. In particular a commitment to triangulation was central, with different data sets and methods used to offer corroborating evidence of participants’ perceptions and the themes that emerged from analysis of the data.

This study has attempted to discover more about early intervention in literacy for socio-economically disadvantaged children and about the process of school involvement in improvement initiatives. It offers insights about the complexities of the relationship between socio-economic disadvantage and literacy progress and attainment in the first years of schooling and demonstrates the interrelationship of approaches to literacy intervention, school improvement and the process of change.

Wider Implications of the Findings

In this final section of the thesis some of the wider implications of the findings are considered. Firstly, further reflection suggests that some of the implications are not specific to literacy intervention and it seems appropriate to broaden the discussion to the practice of teaching in general.

While acknowledging the critical importance of achieving multi-level change in school improvement initiatives, the analysis provides strong support for a renewed focus on achieving changes at classroom level, with the focus on teaching and learning as crucial. The findings indicate that attention needs to be paid to the classroom as the prime context for initiating changes that will impact positively on the daily experiences, learning opportunities and achievement levels of children. The evidence suggests that a model of school improvement that focuses on developing the internal capacity of the school must place classrooms and teachers at the centre of change efforts. This study offers examples of what this looks like in practice and demonstrates the capacity of teachers to use their professional judgement to adapt approaches to meet the needs of children; to build on curricular recommendations; to initiate strategies; and to identify and extend opportunities as they arise. The challenge for future initiatives is to create appropriate systems and structures that support the central role that teachers seem to have in driving the process forward, and that allow for developments in teaching approaches to emerge from the dynamics of classroom practice.
An intriguing finding was that participants claimed the involvement in the initiative had resulted in the lifting of certain restrictions to their practice. Moreover, rather than challenging participants' views, certain recommendations seemed to confirm and fit with their existing beliefs, with the challenge being to policy in the schools. Two powerful examples of this were teachers' unanimous support for the introduction of learning support at the early stages, and for the changes made to the methodology used in the teaching of writing. The majority stressed that, as one put it, 'this was the way it should have always been'. It is noteworthy that the majority of teachers who took part in the National Early Intervention Programme had the same strongly held views about these particular practices (Fraser et al., 2001). This begs the question of why teachers' views on these issues had not been taken account of before the advent of early intervention initiatives and raises deeper questions about the national curriculum development process in Scotland. In particular, the issue of how teachers can become engaged in major curriculum development should be a key question for the committee currently considering the curriculum 3-18 (SEED, 2003). In short these findings indicate a need to set up channels of communication that are accessible to teachers, afford status to their views and encourage discussion amongst practitioners, researchers and policy makers. It is only in this way we can hope to get real change in classroom practice.

Also likely to have wider implications for teaching and learning across the curriculum are the findings associated with the positive impact of having extra adult support in the classroom. Indeed, participants themselves highlighted the wider impact on teaching and learning experienced as a result of this development. The benefits identified included increased opportunities for small group and individual support and instruction; the provision of a wider range of activities; more opportunities to assess children's understandings; easier class management; more opportunities for focused interactions with individual children; deeper levels of differentiation; an increase in children's concentration and on task behaviour; and children adopting a more active role in their learning. Increasing the ratio of adults working with children had triggered factors that have the potential for increasing the quality of teaching and learning and, interestingly, are almost identical to those classroom processes that have recently been found to be associated with the impact of smaller classes (Blatchford et al., 2003).
Further positive effects of team work during the intervention, which have implications for teaching in general, were an increase in social interaction, engagement in group reflection and talk about practice. These are all activities that were identified in the review of the literature as being associated with effective teaching and as important elements in effective improvement initiatives. The study was not designed to measure any quantitative effects on attainment or progress of having extra adults in the classroom. However, in terms of teachers’ perceptions of the impact of this development, the findings echo those from other studies which found that teachers were highly positive about the contribution made by extra personnel (Fraser et al., 2001; Blatchford et al., 2003).

The study showed that involvement in collaborative work demands a number of interpersonal and organisational skills and this has implications for ensuring opportunities for staff development and time for planning and discussion. The findings demonstrated that working with others is a complex undertaking. However, there is much to be learned about effective collaborative practice in educational settings from recent research in the pre-school sector, where approaches to teamwork are well established (see for example Penn, 2000; Moyles et al., 2002; Siraj-Blatchford et al., 2002). Interestingly, central to the process of quality collaboration in pre-school is a model that identifies the role of the teacher as the pedagogical leader who takes forward the curriculum planning and offers positive role-modelling to less well-qualified staff (Siraj-Blatchford et al., 2003). The findings from the study lend themselves to the possibility that this is a model of collaboration worthy of exploration and development in the early years classes of primary schools. This has particular resonance with current policy developments which emphasise the importance of inter-agency working. The teacher is one among many professionals whose expertise and skills need choreographing to provide the best possible services in the interest of the child as a person.

It seems that team work in classrooms is emerging as an approach which has considerable potential but, as been identified in this, and other recent studies (Fraser et al., 2001; Blatchford et al., 2003), it is a strategy that is still in its infancy and there is some way to go in planning for effective deployment of staff to develop the full potential of the approach. Nevertheless, the wide range of benefits identified for both teachers and children has implications for its future development. More research and development work is needed to support schools’ capacities for
identifying and building on opportunities that make best use of the personnel resource available in any given context, as well as studies of the broader impact of this approach on children in terms of cognitive, academic and affective outcomes.

To turn now to the insights gathered about teachers’ approaches and children’s learning experiences during the implementation of the intervention. The findings indicated that children were involved in developing metacognitive awareness, and adult participants claimed to be using a more ‘explicit approach’ to teaching. This approach involved an increased use of focused teacher/pupil talk around learning activities, which offered opportunities for teachers to model and discuss the utility of strategies, and encouraged children to talk about their own strategies and articulate their reasons for selection.

The findings that young children were engaging with their literacy learning in this way, coupled with teachers’ descriptions of the positive impact of strategies they had initiated to develop children’s metacognition, are likely to have wider implications for learning across the curriculum and for teaching practice in general. Indeed, in recent years there has been an increasing interest in the area of developing metacognition, however the focus has tended to be on older children. A range of evidence from this study endorses the conclusions, reached in a recent wide-ranging investigation of early years’ practice, that highlight the need for more research with young children to discover whether there is a ‘particular kind of effective pedagogy which supports children’s development of thinking and metacognition’ (Moyles et al., 2002:137).

It could be argued that the type of focused teacher/pupil talk that was identified in this PhD study is an example of the kind of pedagogical strategy that could be used to progress children’s metacognitive awareness and to support their conceptual development. This hypothesis is in line with the findings of a recent study that identifies the potential of a similar approach. This study, undertaken by Siraj-Blatchford and her colleagues (2002), was developed to identify effective pedagogical strategies in the early years of school. The researchers argue that adult-child verbal interactions, which include some element of ‘sustained shared thinking’ where the adult and the child are involved in the active construction of an idea or skill, may be especially valuable in terms of children’s learning and in promoting metacognitive activity. The use of these kinds of
strategies is likely to have implications for the professional development of teachers in terms of building their expertise for engagement in the type of focused interactions that are needed to support children’s metacognitive development.

It seems that efforts to develop metacognitive activity demand a commitment to both listening to what children have to say and recognising them as ‘active agents in knowing’ (Brown, 1980). This links to the wider implications of the findings that are associated with the importance of teachers listening to children’s voices in the context of changing practice and current theory. The study offered insights about children’s experiences and perceptions, and provided insights about the theories and concepts that underpinned their thinking, as well as their dispositions and expectations as learners. It offered a richness of data that allowed the children’s voices to be heard, rather than merely reported by their teachers. The approach used in the study fits well with the gathering movement that recognises the importance of listening to children’s interests and concerns and that identifies this as a core social value (ESRC, 1996). The emergence of the concept of ‘children’s voice’ reflects the developing efforts to encourage children’s participation (Prout, 2003) and is seen as increasingly important both in terms of human rights issues (MacBeath et al., 2001) and as a key source for gaining knowledge about children’s experiences (Christensen and James, 2000).

In the study listening to children’s voices offered insights about how they experienced and perceived themselves as learners and how they viewed the role played by significant adults in supporting their learning. The finding that children are clearly capable of articulating their perspectives points to the importance of gathering their views so as to develop our knowledge about the teaching and learning process. Taking account of what these ‘expert witnesses’ (Ruddock, 1999) have to say is likely to be a key strategy that can inform policy and the design and implementation of developmentally appropriate practices. The findings from the study support the views of those who believe that listening to, and acting on, children’s perspectives are likely to enhance teaching and learning (Grainger et al., 2003), and to be key components of school improvement and central to any agenda for change (Duffield et al., 2000; Doddington et al., 2000; Rudduck and Flutter, 2000). Furthermore, the methodological approach adopted may well be useful in promoting children’s participation in decision-making not only about their own learning, but also on whole school matters such as espoused in the education for citizenship.
agenda (Learning and Teaching Scotland, 2002). Encouraging pupils to articulate schools issues that are important to them, through playing being the headteacher, for instance, or playground supervisor might be productive.

However, as already discussed, the voices of the youngest children are still not featuring regularly in school improvement initiatives, nor in educational research in general. Nutbrown and Hannon (2003:117) posit that educational research is perhaps 'one of the last arenas in society where it is still the case that children - especially young children - are seen but not heard'. As explored earlier, a possible explanation for why young children’s voices have, until recently, been absent from the research arena is the recognition that investigating young children’s perceptions is problematic in terms of the methodology available. The study has, therefore, contributed to a key role of the research community which is to develop innovative methods to facilitate the exploration of young children’s understandings (for other recent developments see for example, Christensen and James, 2000; Kirby, 2000; Lewis and Lindsay, 2000). It underlines the importance of setting the data gathering in contexts that are authentic and that make sense to young children.

Underpinning the developing movement to listen to children’s voices and to gather their perceptions about learning must be a serious commitment by those involved to make use of the findings in ways that impact creatively on policy and practice. New understandings should open up new possibilities that develop capacities for teaching, learning and participation. Set in the context of the developing literature on researching children’s perspectives, and the calls for children’s voices to be taken account of when forming policy and developing practice that concerns them (Christensen and James, 2000; Prout and Hallett, 2003; Nutbrown and Hannon, 2003), the findings suggest the following wider implications for developing such capacities.

Firstly, there is a need for cohesive attempts to bring together the findings from recent research about young children’s views and experiences of learning, and to ensure that there is wide dissemination of these findings in ways that are easily accessible by practitioners. If children’s voices are to be used as a means of changing practice then the connections between what children say, and the potential for using this as a tool for reviewing and developing practice, must be made explicit.
This type of approach opens up possibilities for school staff and higher education personnel to work collaboratively in devising developmentally appropriate methods for collecting children’s perceptions. In this study the researcher used her experience of teaching young children to develop the ‘playing at schools’ method of data collection. Classroom practitioners, with their deep knowledge of young children’s interests and concerns, will have much to offer in supporting the research community devise methodologies for use in studies that seek to gather the perceptions of young children.

The study showed that teachers used their ‘stories’ about teaching and learning, often based around ‘what children said’, as a way of discussing their professional practice and developing their understandings and theories. These findings have implications for professional development work with teachers. It is likely that using children’s voices as a focus for discussion and collaborative analysis is an approach to development work that has the potential to engage teachers. It also opens up further possibilities for collaboration between school staff and higher education personnel. Outside agents can play a role in supporting teachers with this type of data collection and analysis during their involvement in related Continuous Professional Development (CPD) opportunities and postgraduate study. The researcher is currently using this approach with teachers in CPD work and it will be central to a forthcoming ‘Early Literacy Development’ Module in the Chartered Teacher Programme.

The rich bank of data gathered in the study from conversations with children is an example of the type of resource that has the potential to make a substantial contribution to our understanding of how young children perceive learning, and to offer new insights about their levels of understandings. The challenge for educators is to listen actively to what children say; to be open to findings that seem to contest their existing beliefs about young children’s capacities, expectations and perceptions; and, most importantly, to use the data they gather as a starting point to develop practice. The spirit of the approach should be to involve teachers fully in analysis and decision making about the best use of the findings so as to create evidence-based practice matched to the learning needs of the children they teach.
Valuing the voices of children, engaging with what they say, and using their understandings and perceptions of the learning process as the basis for review and development work, places children, teachers and classroom experiences at the centre of change initiatives. It offers schools the opportunity to build their capacity for greater understandings about the nature of teaching and learning from within.

In this last section of the thesis the discussion returns to findings related to a central aim of the study, which was to discover more about the impact of early intervention in literacy for socio-economically disadvantaged children. A key finding was that the gap in attainment between the disadvantaged children and their more advantaged peers remained. Moreover, an important discovery was that for children in their first year of schooling the intervention had a differential impact on the literacy attainment of children with a free meal entitlement and those who had not. While both groups of children significantly increased their scores, rather than closing the gap between the less advantaged children and their more advantaged peers, after a year of intervention the gap had widened. Some possible explanations for this differential are presented earlier in this chapter. The discussion now turns to some final reflections on the implications of these key findings for policy and practice.

A strong message emerging from the study, which resonates with the recommendations from the recent national evaluation of intervention initiatives in Scotland (Fraser, 2001), is that there is a need for clarification of policy and funding issues associated with raising attainment and attempts to ameliorate educational inequalities linked to poverty. There is a need to debate whether improvement initiatives should be about raising literacy attainment across the board, or whether the key concern should be to target interventions at socio-economically disadvantaged children with the aim of closing the gap. Both are valid educational aims, however, the findings from the study suggest that strategies which attempt to target both concurrently are too simplistic and ignore the body of literature reviewed that highlights the complexities surrounding any attempts to ameliorate the effects of poverty and break the links with educational disadvantage.

These findings are important, particularly when examined in the context of the national policy agenda in Scotland. The first of the National Priorities for Education is to 'raise standards of educational attainment for all in schools, especially in the core skills of literacy and
Related to this are the social justice milestones, set by the Scottish Executive with the aim of ‘increasing the proportion of our children who attain the appropriate levels in reading, writing and mathematics’ (1999). Emerging recently from these policy aims are the National Statements on Improving Attainment in Literacy and Numeracy (Scottish Executive, 2002a) which, again, have placed literacy at the forefront of the educational agenda in Scottish schools. Crucially, the need to focus on the particular needs of disadvantaged children is emphasised, with one of the main issues to be addressed by the National Statements reported as ‘raising levels of attainment amongst pupils experiencing poverty and injustice;’ a key mechanism for addressing this is described as ‘closing the gap’ (Scottish Executive, 2002a).

These aims are likely to present a considerable challenge to policy makers and practitioners when set in the context of the findings from this study and those from the national evaluation (Fraser et al., 2001). The results showed that even after systematic attempts at literacy intervention, while attainment overall rose, the gap between the socio-economically disadvantaged children and their more advantaged peers remained.

Moreover, this study offers further findings related particularly to the impact of literacy intervention in the first year of schooling. It showed that the intervention had a differential impact on the progress and attainment of the disadvantaged children and their more advantaged peers and that this had resulted in a widening of the gap. This highlights the need to examine more closely the learning needs of disadvantaged children and has wider implications for the current national developments. It was argued earlier that the disadvantaged children may not have been at a point on the continuum of literacy development where they could benefit from the intervention. This strongly suggests that a priority for policy makers and practitioners is to discover more about the most effective pedagogical strategies for supporting and progressing the literacy learning of disadvantaged children in this critical first year of their schooling. The challenge will be to offer differentiated experiences that are tailored to their learning needs and which, importantly, nurture their expectations and motivation as learners. There seems to be a strong argument emerging that disadvantaged children will require differentiated routes and increased levels of support if social justice milestones are to be reached and there is any hope of closing the gap. The national evaluation of intervention found that the greatest increase in reading attainment for the most disadvantaged pupils was in those local authorities where a
policy was adopted of focusing the available resources in fewer schools. It may well be that a policy of targeting resources will be a fundamental requirement of any strategy, such as that of the Scottish Executive (2002a), which aims to raise attainment ‘amongst pupils experiencing poverty and injustice’.

In terms of developing pedagogical strategies, it is possible that some of the wider implications for practice arising from the study are worthy of further research in terms of their potential for progressing and supporting the learning of disadvantaged children. For example, it seems likely that focused teacher/pupil talk and a commitment to listening to children’s voices are strategies that can help educators become more aware of children’s perceptions and current levels of understanding and, therefore, assist in the provision of learning opportunities that are more closely matched to children’s stages of development, learning needs and dispositions. Further research is needed to explore whether strategies such as having extra personnel in the classroom, or recognising and developing the metacognitive capacity of young learners can have a positive impact on the particular learning needs of disadvantaged children.

The finding that compared to their more socio-economically advantaged peers the disadvantaged children entered school with lower literacy scores is likely to have wider implications for the potentially important role that good quality pre-school education can play in extending children’s literacy acquisition before they enter school. Indeed, there is much to be learned about the role of pre-school education from the findings of a recent, major study undertaken in England by Sylva and her colleagues (2003). These researchers argue that ‘pre-school can play an important part in combating social exclusion and promoting inclusion by offering disadvantaged children, in particular, a better start to primary school’ (p.2). Importantly, the research identifies effective pedagogical strategies for pre-school that can support disadvantaged children. The results demonstrate that during their pre-school education children from disadvantaged backgrounds can benefit from specialised support, especially for language and pre-reading skills. The researchers acknowledge that while pre-school will not eliminate the effects of growing up in poverty they claim that it can have an important positive impact on children’s development.
In terms of the policy context in Scotland it is clearly a positive development that in the recent past there has been a commitment to a substantial expansion of the availability of pre-school education (Scottish Executive, 2001) and that the National Statements (Scottish Executive, 2002b) identify the importance of pre-school in the movement to raise literacy standards for socio-economically disadvantaged children. The aims detailed by the Executive of increasing collaboration between pre-school and primary sectors, more effective assessment arrangements and better sharing of information about children’s progress are all pedagogical strategies that have the potential to support children’s literacy acquisition before they enter school. However, it could be argued that there also needs to be a specific focus on practice, in terms of increasing educators expertise in the use of the kind of focused interactions that seem to support children’s metacognitive development.

A recent report from a local authority in Scotland (Aberdeen City Council, 2003:6) is worth mentioning as it claims that for the first time since the early intervention began in the authority there is ‘evidence that disadvantaged children are making faster progress’ and are ‘closing the gap’ on their more advantaged peers. In the context of the findings from this PhD study, the national evaluation of the early intervention programme (Fraser, 2001), and all that is known about the failure of most attempts to break the links between educational disadvantage and poverty, the claims made by this city council are important. It will be vital to monitor whether this phenomenon is repeated for the next intake of Primary One children.

If potential breakthroughs, such as reported above, are to have wider impact, it is crucial to gather a wide range of information about how this was achieved, with specific examples of what the implementation of the intervention looked like in practice. The study has demonstrated that if we are to discover more about the impact of intervention in literacy for socio-economically disadvantaged children then it is essential to adopt a systematic broad approach to evaluation that studies the process as well as the outcomes and includes a longitudinal dimension. Policy makers and practitioners are still grappling to discover what works and why in terms of interventions for disadvantaged children. Studies that gather data about the bigger picture of intervention are more likely to offer deeper insights about this highly complex process and to increase the possibility that initiatives found to be effective can be replicated in similar situations. On a final note, while the many school-based interventions currently being
implemented to mitigate the effects of growing up in poverty are clearly worthwhile and well-intentioned, it is crucial that these efforts should not distract from the wider policy agenda and government pledge to eradicate child poverty within 20 years (Blair, 1999; Brown, 2003).
BIBLIOGRAPHY


332


Lothian Regional Council (1995a) A Policy for Reading, Edinburgh: LRC.


Scottish Consultative Committee on the Curriculum (1998) Reading the Reader, Dundee: SCCC.


Scottish Consultative Committee on the Curriculum (1998) Reading the Reader, Dundee: SCCC.


345


# EVALUATION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Venue</th>
<th>Date</th>
<th>NG:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Tutor

Please tick the appropriate box and comment in the space provided. (Please enter the number of your Neighbourhood Group above.)

<table>
<thead>
<tr>
<th>1 Course Alms</th>
<th>Very Clear</th>
<th>Clear</th>
<th>Unclear</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Were these clear and were they realised?)</td>
<td>Well realised</td>
<td>Realised in part</td>
<td>Unrealised</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2 Course Content</th>
<th>Just right</th>
<th>Too much</th>
<th>Too little</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Was content appropriate in terms of quantity and relevance?)</td>
<td>Very relevant</td>
<td>Partly relevant</td>
<td>Irrelevant</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3 Presentation/Methods</th>
<th>Very effective</th>
<th>Partly effective</th>
<th>Ineffective</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Were these effective/appropriate?)</td>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4 Other Issues/Suggestions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(eg additions, omissions, changes and emphasis)</td>
<td>Comments:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5 What personal action do you envisage arising from this In-service?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(eg directly in the classroom, disseminating to other staff)</td>
<td>Comments:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6 Location and 'domestic' arrangements</th>
<th></th>
</tr>
</thead>
</table>

Please return the completed form to your Staff Development Coordinator (or equivalent person).

Name: ___________________________

School: _________________________

---

**Appendix 1**
### Table A Classteachers’ Responses to Question 1. *Course Aims: Were these clear and were they realised?*

<table>
<thead>
<tr>
<th>School</th>
<th>% of evaluations returned by P1-7 teachers</th>
<th>Course Aims Selection %</th>
<th>Course Aims Selection %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Very Clear Clear Unclear Missing Data</td>
<td>Well Realised Realised in part Unrealised Missing data</td>
</tr>
<tr>
<td>1</td>
<td>100</td>
<td>89 - - 11</td>
<td>50 - - 50</td>
</tr>
<tr>
<td>2</td>
<td>56</td>
<td>70 - - 30</td>
<td>40 - - 60</td>
</tr>
<tr>
<td>3</td>
<td>100</td>
<td>92 - - 8</td>
<td>17 - - 83</td>
</tr>
<tr>
<td>4</td>
<td>88</td>
<td>64 36 - -</td>
<td>21 - - 79</td>
</tr>
<tr>
<td>5</td>
<td>100</td>
<td>80 20 - -</td>
<td>10 - - 90</td>
</tr>
<tr>
<td>6</td>
<td>100</td>
<td>69 31 - -</td>
<td>6 6 - 88</td>
</tr>
</tbody>
</table>

### Table B Classteachers’ Responses to Question 2. *Course Content: Was content appropriate in terms of quantity and relevance?*

<table>
<thead>
<tr>
<th>School</th>
<th>% of evaluations returned by P1-7 teachers</th>
<th>Course Content Selection %</th>
<th>Course Content Selection %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Just right Too Much Too Little Missing Data</td>
<td>Very Relevant Parly Relevant Irrelevant Missing data</td>
</tr>
<tr>
<td>1</td>
<td>100</td>
<td>89 - - 11</td>
<td>61 - - 39</td>
</tr>
<tr>
<td>2</td>
<td>56</td>
<td>90 - - 10</td>
<td>50 - - 50</td>
</tr>
<tr>
<td>3</td>
<td>100</td>
<td>42 33 - 25</td>
<td>42 - - 58</td>
</tr>
<tr>
<td>4</td>
<td>88</td>
<td>71 - - 29</td>
<td>36 7 - 57</td>
</tr>
<tr>
<td>5</td>
<td>100</td>
<td>90 - - 10</td>
<td>20 - - 80</td>
</tr>
<tr>
<td>6</td>
<td>100</td>
<td>63 - - 38</td>
<td>38 19 - 44</td>
</tr>
</tbody>
</table>
What has been the impact of the project on your school?

*Issues for consideration:*

- curriculum balance
- staff development
- parental involvement
- school ethos
- deployment of staff
- budget
- resource purchase and allocation
- involvement of outside agencies

What has been the impact of the project on practice?

*Issues for consideration:*

- changes in methodology
- curriculum balance
- time spent on literacy activities
- organisation
- resources
- parental involvement
- other adults working in the classroom
- collaboration among staff
What has been the impact of the project on the children?

Issues for consideration:

• progress in reading attainment
• progress in writing attainment
• awareness of print.
• motivation
• attitude towards involvement in literacy activities

Which do you think have been the most successful elements of the project?

Which do you think have been the least successful elements of the project?

Have there been any unexpected outcomes?

Do you have any ideas for maintaining the momentum?
<table>
<thead>
<tr>
<th>School</th>
<th>Curriculum Balance</th>
<th>Classroom Organisation</th>
</tr>
</thead>
</table>
| 1      | Shift towards literacy  
• Significant increase in the time being spent on literacy activities  
• The issue of less time being spent on mathematics was emphasised and mentioned frequently  
• Strong concerns raised about changes made to balance of curriculum, particularly with decrease in amount of time spent on mathematics  
• CTs attempted to argue the case for changing the balance of the curriculum | Majority of literacy teaching taking place in the morning  
• CTs reported a move towards a more structured approach  
• CTs instigated change of organisation  
• Blocks of the day now dedicated to all children working on language activities at the same time  
• New organisation seen as effective  
• Extra adults in class given as one reason for change to organisation |
| 2      | Shift towards literacy  
• Significant increase in the time being spent on literacy activities  
• Less time being spent on environmental studies  
• Staff comments indicate that they feel fairly comfortable with the changes to the balance of the curriculum | CTs reported a move towards a more structured approach  
• CTs instigated change of organisation  
• Blocks of the day now dedicated to all children working on language activities at the same time  
• New organisation seen as effective  
• Extra adults in class given as one reason for change to organisation |
| 3      | Shift towards literacy  
• Significant increase in the time being spent on literacy activities  
• The issue of less time being spent on mathematics was emphasised and mentioned frequently  
• Staff comments indicate that they feel fairly comfortable with the changes to the balance of the curriculum  
• Less time being spent on environmental studies' | CTs reported a move towards a more structured approach  
• CTs instigated change of organisation  
• Blocks of the day now dedicated to all children working on language activities at the same time  
• New organisation seen as effective  
• Extra adults in class given as one reason for change to organisation |
| 4      | Shift towards literacy  
• Significant increase in the time being spent on literacy activities  
• The issue of less time being spent on mathematics was emphasised and mentioned frequently  
• Strong concerns raised about changes made to balance of curriculum, particularly with decrease in amount of time spent on mathematics  
• CTs attempted to argue the case for changing the balance of the curriculum | Majority of literacy teaching taking place in the morning  
• CTs reported a move towards a more structured approach  
• CTs instigated change of organisation  
• Blocks of the day now dedicated to all children working on language activities at the same time  
• New organisation seen as effective  
• Extra adults in class given as one reason for change to organisation |
| 5      | Shift towards literacy  
• Significant increase in the time being spent on literacy activities  
• The issue of less time being spent on mathematics was emphasised and mentioned frequently  
• Strong concerns raised about changes made to balance of curriculum, particularly with decrease in amount of time spent on mathematics  
• CTs attempted to argue the case for changing the balance of the curriculum | Majority of literacy teaching taking place in the morning  
• CTs reported a move towards a more structured approach  
• CTs instigated change of organisation  
• Blocks of the day now dedicated to all children working on language activities at the same time  
• New organisation seen as effective  
• Extra adults in class given as one reason for change to organisation |
| 6      | Shift towards literacy  
• Significant increase in the time being spent on literacy activities  
• The issue of less time being spent on mathematics was emphasised and mentioned frequently  
• Strong concerns raised about changes made to balance of curriculum, particularly with decrease in amount of time spent on mathematics  
• CTs attempted to argue the case for changing the balance of the curriculum | Majority of literacy teaching taking place in the morning  
• CTs reported a move towards a more structured approach  
• CTs instigated change of organisation  
• Blocks of the day now dedicated to all children working on language activities at the same time  
• New organisation seen as effective  
• Extra adults in class given as one reason for change to organisation |
### Table 1b Classteachers’ Perceptions Category: Change in Practice and related sub-categories

<table>
<thead>
<tr>
<th>School</th>
<th>Effect of Previous Beliefs</th>
<th>Explicit Teaching</th>
</tr>
</thead>
</table>
| 1      | • Recommendations identified that fitted with staff’s previous beliefs about literacy teaching and had not been in practice prior to the project  | • Spontaneous references made to the use of a more explicit approach to literacy teaching  
• Teachers report that they are trying to ensure that children understand the utility and importance of the strategies that are being taught  
• Teachers describe strategies they have initiated that were aimed at developing children’s meta-cognition in relation to literacy |
|        | • Changes in methodology used in the teaching of writing, particularly welcomed               |                                                                                                                                                    |
|        | • Teachers reported that as a result of their involvement in the project some of their previously held beliefs about literacy teaching and learning had been challenged, and had changed  |                                                                                                                                                    |
|        | • Classteachers claimed to have much higher expectations of the children’s literacy attainment in the first years of schooling  |                                                                                                                                                    |
|        | • Comments about how focusing the LST’s work at the early stages fitted with previous beliefs  |                                                                                                                                                    |
|        | • Comments made about ‘a return to traditional methods’ of teaching literacy                   |                                                                                                                                                    |
| 2      | • Recommendations identified that fitted with staff’s previous beliefs about literacy teaching and had not been in practice prior to the project  | • No references made to the theme of explicit teaching                                                                                           |
|        | • Changes in methodology used in the teaching of writing, particularly welcomed               |                                                                                                                                                    |
|        | • Comments about how focusing the LST’s work at the early stages fitted with previous beliefs  |                                                                                                                                                    |
|        | • Comments made about ‘a return to traditional methods’ of teaching literacy                   |                                                                                                                                                    |
| 3      | • Recommendations identified that fitted with staff’s previous beliefs about literacy teaching and had not been in practice prior to the project  | • Spontaneous references made to the use of a more explicit approach to literacy teaching  
• Teachers report that they are trying to ensure that children understand the utility and importance of the strategies that are being taught  
• Teachers describe strategies they have initiated that were aimed at developing children’s meta-cognition in relation to literacy |
|        | • Changes in methodology used in the teaching of writing, particularly welcomed               |                                                                                                                                                    |
|        | • Teachers reported that as a result of their involvement in the project some of their previously held beliefs about literacy teaching and learning had been challenged, and had changed  |                                                                                                                                                    |
|        | • Classteachers claimed to have much higher expectations of the children’s literacy attainment in the first years of schooling  |                                                                                                                                                    |
|        | • Comments about how focusing the LST’s work at the early stages fitted with previous beliefs  |                                                                                                                                                    |
|        | • Comments made about ‘a return to traditional methods’ of teaching literacy                   |                                                                                                                                                    |
| 4      | • Recommendations identified that fitted with staff’s previous beliefs about literacy teaching and had not been in practice prior to the project  | • No references made to the theme of explicit teaching                                                                                           |
|        | • Changes in methodology used in the teaching of writing, particularly welcomed               |                                                                                                                                                    |
|        | • Comments about how focusing the LST’s work at the early stages fitted with previous beliefs  |                                                                                                                                                    |
|        | • Comments made about ‘a return to traditional methods’ of teaching literacy                   |                                                                                                                                                    |
| 5      | • Recommendations identified that fitted with staff’s previous beliefs about literacy teaching and had not been in practice prior to the project  | • No references made to the theme of explicit teaching                                                                                           |
|        | • Changes in methodology used in the teaching of writing, particularly welcomed               |                                                                                                                                                    |
|        | • Comments about how focusing the LST’s work at the early stages fitted with previous beliefs  |                                                                                                                                                    |
|        | • Comments made about ‘a return to traditional methods’ of teaching literacy                   |                                                                                                                                                    |
| 6      | • Recommendations identified that fitted with staff’s previous beliefs about literacy teaching and had not been in practice prior to the project  | • Spontaneous references made to the use of a more explicit approach to literacy teaching  
• Teachers report that they are trying to ensure that children understand the utility and importance of the strategies that are being taught  
• Teachers describe strategies they have initiated that were aimed at developing children’s meta-cognition in relation to literacy |
|        | • Changes in methodology used in the teaching of writing, particularly welcomed               |                                                                                                                                                    |
|        | • Comments about how focusing the LST’s work at the early stages fitted with previous beliefs  |                                                                                                                                                    |
Table 1c Classteachers’ Perceptions Category: Change in Practice and related sub-categories

<table>
<thead>
<tr>
<th>School</th>
<th>Deployment of Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Classteachers reported a marked increase in the number and range of personnel working in their classrooms. Increase in learning support provision highlighted, and unanimously welcomed by classteachers.</td>
</tr>
<tr>
<td>2</td>
<td>Classteachers reported an increase in the number and range of personnel working in their classrooms. Increase in learning support provision highlighted, and unanimously welcomed by classteachers. Uncertainty expressed about people ‘who were not teachers’ being involved in the teaching of reading. Classteachers highlighted management issues associated with working with other people in the classroom. ‘Extra help’ identified as being one of the most successful elements of the project.</td>
</tr>
<tr>
<td>3</td>
<td>Classteachers reported an increase in the number and range of personnel working in their classrooms. Increase in learning support provision highlighted, and unanimously welcomed by classteachers. Uncertainty expressed about people ‘who were not teachers’ being involved in the teaching of reading.</td>
</tr>
<tr>
<td>4</td>
<td>Classteachers reported a marked increase in the number and range of personnel working in their classrooms. Increase in learning support provision highlighted, and unanimously welcomed by classteachers. Teachers highlighted the theme of adjusting to other people ‘coming into your room’. Classteachers highlighted management issues associated with working with other people in the classroom.</td>
</tr>
<tr>
<td>5</td>
<td>Classteachers reported an increase in the number and range of personnel working in their classrooms. Increase in learning support provision highlighted, and unanimously welcomed by classteachers. Teacher highlighted the theme of adjusting to other people ‘coming into your room’.</td>
</tr>
<tr>
<td>6</td>
<td>Classteachers reported a marked increase in the number and range of personnel working in their classrooms. Increase in learning support provision highlighted, and unanimously welcomed by classteachers. Uncertainty expressed about people ‘who were not teachers’ being involved in the teaching of reading. Teachers highlighted the theme of adjusting to other people ‘coming into your room’. Classteachers highlighted management issues associated with working with other people in the classroom. ‘Extra help’ identified as being one of the most successful elements of the project.</td>
</tr>
</tbody>
</table>
Table 1d Class teachers’ Perceptions Category: Change in Practice and related sub-categories

<table>
<thead>
<tr>
<th>School</th>
<th>Methodology, Content and Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>• Teachers report some changes to methodology, content and resources used for literacy teaching</td>
</tr>
<tr>
<td></td>
<td>• Teachers spontaneously offered evidence to support claims of change</td>
</tr>
<tr>
<td></td>
<td>• Increase in the frequency and the amount of time spent hearing children read</td>
</tr>
<tr>
<td></td>
<td>• Some concerns expressed about whether the above had impacted negatively on the quality of teacher input during these sessions</td>
</tr>
<tr>
<td></td>
<td>• Reference made to the introduction of new approaches in the teaching of writing</td>
</tr>
<tr>
<td></td>
<td>• Teachers offered specific evidence to support claims about teaching of writing</td>
</tr>
<tr>
<td></td>
<td>• Systematically teaching letter-sound correspondence and letter names at a much faster pace than before</td>
</tr>
<tr>
<td></td>
<td>• Teachers highlighted efforts to teach ‘the common word list’</td>
</tr>
<tr>
<td></td>
<td>• Increased focus on developing children’s awareness of rhyme</td>
</tr>
<tr>
<td></td>
<td>• Children encouraged to ‘take more responsibility’ for their own learning</td>
</tr>
<tr>
<td></td>
<td>• Teachers reported having been issued with many new resources</td>
</tr>
<tr>
<td></td>
<td>• Problems with time-scale of delivery of resources mentioned</td>
</tr>
<tr>
<td>2</td>
<td>• Teachers report some changes to methodology, content and resources used for literacy teaching</td>
</tr>
<tr>
<td></td>
<td>• Teachers spontaneously offered evidence to support claims of change</td>
</tr>
<tr>
<td></td>
<td>• Increase in the frequency and the amount of time spent hearing children read</td>
</tr>
<tr>
<td></td>
<td>• Reference made to the introduction of new approaches in the teaching of writing</td>
</tr>
<tr>
<td></td>
<td>• Systematically teaching letter-sound correspondence and letter names at a much faster pace than before</td>
</tr>
<tr>
<td></td>
<td>• Teachers highlighted efforts to teach ‘the common word list’</td>
</tr>
<tr>
<td></td>
<td>• Increased focus on developing children’s awareness of rhyme</td>
</tr>
<tr>
<td></td>
<td>• Teachers reported having been issued with very few new resources</td>
</tr>
<tr>
<td>3</td>
<td>• Teachers report some changes to methodology, content and resources used for literacy teaching</td>
</tr>
<tr>
<td></td>
<td>• Teachers spontaneously offered evidence to support claims of change</td>
</tr>
<tr>
<td></td>
<td>• Increase in the frequency and the amount of time spent hearing children read</td>
</tr>
<tr>
<td></td>
<td>• Some concerns expressed about whether the above had impacted negatively on the quality of teacher input during these sessions</td>
</tr>
<tr>
<td></td>
<td>• Reference made to the introduction of new approaches in the teaching of writing</td>
</tr>
<tr>
<td></td>
<td>• Teachers offered specific evidence to support claims about teaching of writing</td>
</tr>
<tr>
<td></td>
<td>• Systematically teaching letter-sound correspondence and letter names at a much faster pace than before</td>
</tr>
<tr>
<td></td>
<td>• Teachers highlighted efforts to teach ‘the common word list’</td>
</tr>
<tr>
<td></td>
<td>• Increased focus on developing children’s awareness of rhyme</td>
</tr>
<tr>
<td></td>
<td>• Children encouraged to ‘take more responsibility’ for their own learning</td>
</tr>
<tr>
<td></td>
<td>• Teachers reported having been issued with a few new resources</td>
</tr>
<tr>
<td></td>
<td>• Class teachers report buying, making or borrowing resources</td>
</tr>
<tr>
<td>4</td>
<td>• Teachers report some changes to methodology, content and resources used for literacy teaching</td>
</tr>
<tr>
<td></td>
<td>• Increase in the frequency and the amount of time spent hearing children read</td>
</tr>
<tr>
<td></td>
<td>• Reference made to the introduction of new approaches in the teaching of writing</td>
</tr>
<tr>
<td></td>
<td>• Systematically teaching letter-sound correspondence at a much faster pace than before</td>
</tr>
<tr>
<td></td>
<td>• Increased focus on developing children’s awareness of rhyme</td>
</tr>
<tr>
<td></td>
<td>• Teachers reported having been issued with a huge amount of new resources</td>
</tr>
<tr>
<td>5</td>
<td>• Teachers report some changes to methodology, content and resources used for literacy teaching</td>
</tr>
<tr>
<td></td>
<td>• Increase in the frequency and the amount of time spent hearing children read</td>
</tr>
<tr>
<td></td>
<td>• Some concerns expressed about whether the above had impacted negatively on the quality of teacher input during these sessions</td>
</tr>
<tr>
<td></td>
<td>• Reference made to the introduction of new approaches in the teaching of writing</td>
</tr>
<tr>
<td></td>
<td>• Teachers offered specific evidence to support claims about teaching of writing</td>
</tr>
<tr>
<td></td>
<td>• Systematically teaching letter-sound correspondence at a much faster pace than before</td>
</tr>
<tr>
<td></td>
<td>• Increased focus on developing children’s awareness of rhyme</td>
</tr>
<tr>
<td></td>
<td>• Teachers reported having been issued with many new resources</td>
</tr>
<tr>
<td>6</td>
<td>• Teachers report some changes to methodology, content and resources used for literacy teaching</td>
</tr>
<tr>
<td></td>
<td>• Teachers spontaneously offered evidence to support claims of change</td>
</tr>
<tr>
<td></td>
<td>• Increase in the frequency and the amount of time spent hearing children read</td>
</tr>
<tr>
<td></td>
<td>• Reference made to the introduction of new approaches in the teaching of writing</td>
</tr>
<tr>
<td></td>
<td>• Teachers offered specific evidence to support claims about teaching of writing</td>
</tr>
<tr>
<td></td>
<td>• Systematically teaching letter-sound correspondence and letter names at a much faster pace than before</td>
</tr>
<tr>
<td></td>
<td>• Teachers highlighted efforts to teach ‘the common word list’</td>
</tr>
<tr>
<td></td>
<td>• Increased focus on developing children’s awareness of rhyme</td>
</tr>
<tr>
<td></td>
<td>• Children encouraged to ‘take more responsibility’ for their own learning</td>
</tr>
<tr>
<td></td>
<td>• Teachers report having been issued with a huge amount of new resources</td>
</tr>
<tr>
<td></td>
<td>• Availability of new resources identified as one of the most successful elements of the project</td>
</tr>
</tbody>
</table>
### Appendix 4

#### Table 1e Classteachers' Perceptions Category: Change in Practice and related sub-categories

<table>
<thead>
<tr>
<th>School</th>
<th>Parental Involvement</th>
</tr>
</thead>
</table>
| 1      | A range of new strategies identified as having been initiated since the start of the project  
|        | CT's states that they had tried to share with parents some of the recommendations from the in-service sessions  
|        | Attempts made to be more explicit in the type of advice given to parents in relation to the development of children's literacy skills  
|        | CT's highlighted the difficulties associated with promoting and sustaining initiatives  
|        | No marked increase in the number of parents coming into school to collaborate on literacy work  
|        | Reports of positive feedback from parents concerning children's literacy development. This included 'stories from home'  
|        | Theories and evidence offered to explain some of the perceived changes in parental involvement  
|        | Suggestion that parents 'understood the reasoning' underpinning some of the project recommendations for literacy teaching  
|        | Teachers believe that they have tried to 'remove the mystique' associated with teaching children to read |
| 2      | A range of new strategies identified as having been initiated since the start of the project  
|        | CT's stated that they had tried to share with parents some of the recommendations from the in-service sessions  
|        | Attempts made to be more explicit in the type of advice given to parents in relation to the development of children's literacy skills  
|        | CT's highlighted the difficulties associated with promoting and sustaining initiatives  
|        | No marked increase in the number of parents coming into school to collaborate on literacy work  
| 3      | Some new strategies identified as having been initiated since the start of the project  
|        | CT's stated that they had tried to share with parents some of the recommendations from the in-service sessions  
|        | Attempts made to be more explicit in the type of advice given to parents in relation to the development of children's literacy skills  
|        | CT's highlighted the difficulties associated with promoting and sustaining initiatives  
|        | No marked increase in the number of parents coming into school to collaborate on literacy work  
|        | Reports of positive feedback from parents concerning children's literacy development. This included 'stories from home'  
|        | Suggestion that parents 'understood the reasoning' underpinning some of the project recommendations for literacy teaching  
| 4      | Some new strategies identified as having been initiated since the start of the project  
|        | CT's highlighted the difficulties associated with promoting and sustaining initiatives  
|        | No marked increase in the number of parents coming into school to collaborate on literacy work  
| 5      | Some new strategies identified as having been initiated since the start of the project  
|        | CT's highlighted the difficulties associated with promoting and sustaining initiatives  
|        | No marked increase in the number of parents coming into school to collaborate on literacy work  
| 6      | Some new strategies identified as having been initiated since the start of the project  
|        | CT's highlighted the difficulties associated with promoting and sustaining initiatives  
|        | No marked increase in the number of parents coming into school to collaborate on literacy work  
<p>|        | Reports of positive feedback from parents concerning children's literacy development. This included 'stories from home' |</p>
<table>
<thead>
<tr>
<th>School</th>
<th>Motivation and Active Involvement</th>
<th>Progress and Achievement</th>
</tr>
</thead>
</table>
| 1      | • Positive impact of project on motivation and active involvement emphasised very strongly  
• A range of evidence, including parents comments, given to back up the above claim  
• Reports of an increase in children’s self-initiated involvement in literacy activities  
• CTs set up play contexts designed to promote literacy  
• CTs spontaneously offered their own theories related to children’s disposition to becoming literate | • Teachers expressed some confidence that the project was having a positive impact on achievement  
• A range of evidence given to back up the above claim  
• Two ‘top groups’ seen to be benefiting most  
• Concerns expressed about ‘widening gap’ emerging in levels of pupil attainment |
| 2      | • CTs reported that there was little evidence to demonstrate increased motivation and active involvement | • Teachers felt that there was very little evidence to indicate that the project was having a significant, positive impact on achievement  
• Any slight improvements not necessarily due to the impact of the project |
| 3      | • Positive impact of project on motivation and active involvement emphasised very strongly  
• A range of evidence, including parents comments, given to back up the above claim  
• Reports of an increase in children’s self-initiated involvement in literacy activities  
• CTs set up play contexts designed to promote literacy  
• CTs spontaneously offered their own theories related to children’s disposition to becoming literate | • Teachers expressed some confidence that the project was having a positive impact on achievement  
• A range of evidence, including parents comments, given to back up the above claim  
• All children seen to be benefiting |
| 4      | • CTs reported that there was little evidence to demonstrate increased motivation and active involvement | • Teachers felt that there was very little evidence to indicate that the project was having a significant, positive impact on achievement  
• Any slight improvements not necessarily due to the impact of the project, but due to the ‘children’s ability’ |
| 5      | • Positive impact of project on motivation and active involvement described | • Teachers felt that there was very little evidence to indicate that the project was having a positive impact on achievement  
• Any slight improvements not necessarily due to the impact of the project |
| 6      | • Positive impact of project on motivation and active involvement emphasised very strongly  
• A range of evidence given to back up the above claim  
• Reports of an increase in children’s self-initiated involvement in literacy activities  
• CTs set up play contexts designed to promote literacy  
• CTs spontaneously offered their own theories related to children’s disposition to becoming literate | • Teachers expressed some confidence that the project was having a positive impact on achievement  
• A range of evidence, including parents comments, given to back up the above claim  
• ‘Less able’ children seen to be benefiting most  
• Some doubts as to whether it was ‘too early to tell’ |
### Table 2b Class teachers’ Perceptions Category: Impact on Children and related sub-categories

<table>
<thead>
<tr>
<th>School</th>
<th>Reading, Writing &amp; Awareness of Print</th>
<th>Awareness of Strategies/Disposition to Use Strategies</th>
</tr>
</thead>
</table>
| 1      | • Considerable increase in children’s print awareness  
• Increased awareness of rhyme  
• More able children making greatest progress with learning common words list  
• P1 class teacher stated explicitly that the project was impacting positively on children’s progress in reading  
• All interviewees felt that the project had impacted positively on children’s writing  
• Positive developments in children’s writing progress associated with introduction of methodology recommended during in-service sessions | • Teachers spontaneously reported that children were demonstrating an awareness of the literacy strategies and skills that had been taught  
• Teachers noted the children’s disposition to make use of the strategies and skills that had been taught  
• Children demonstrating an increased confidence in their willingness to independently ‘have a go’ at literacy activities  
• Interviewees believe that children had started to ‘make the link’ between what they were being taught and becoming readers and writers  
• Achieving success in using strategies identified as having a knock-on effect on children’s motivation  
• A range of evidence offered to support the above claims |
| 2      | • Some increase in children’s print awareness  
• Increased awareness of rhyme  
• More able children making greatest progress with common words list  
• Some felt that the project had impacted positively on children’s writing | • No reference to this theme |
| 3      | • Considerable increase in children’s print awareness  
• Increased awareness of rhyme  
• Children learning common words list  
• P1 class teacher stated explicitly that the project was impacting positively on children’s progress in reading  
• All interviewees felt that the project had impacted positively on children’s writing  
• Positive developments in children’s writing progress associated with introduction of methodology recommended during in-service sessions | • Teachers spontaneously reported that children were demonstrating an awareness of the literacy strategies and skills that had been taught  
• Teachers noted the children’s disposition to make use of the strategies and skills that had been taught  
• Children demonstrating an increased confidence in their willingness to independently ‘have a go’ at literacy activities  
• Interviewees believe that children had started to ‘make the link’ between what they were being taught and becoming readers and writers  
• Achieving success in using strategies identified as having a knock-on effect on children’s motivation  
• A range of evidence offered to support the above claims |
| 4      | • Some increase in children’s print awareness  
• Increased awareness of rhyme  
• More able children making greatest progress with learning common words list  
• Some felt that the project had impacted positively on children’s writing | • No reference to this theme |
| 5      | • Considerable increase in children’s print awareness  
• Increased awareness of rhyme  
• More able children making greatest progress with learning common words list  
• All interviewees felt that the project had impacted positively on children’s writing  
• Positive developments in children’s writing progress associated with introduction of methodology recommended during in-service sessions | • No reference to this theme |
| 6      | • Considerable increase in children’s print awareness  
• Increased awareness of rhyme  
• Children learning common words list  
• All interviewees felt that the project had impacted positively on children’s writing  
• Positive developments in children’s writing progress associated with introduction of methodology recommended during in-service sessions | • Teachers spontaneously reported that children were demonstrating an awareness of the literacy strategies and skills that had been taught  
• Teachers noted the children’s disposition to make use of the strategies and skills that had been taught  
• Children demonstrating an increased confidence in their willingness to independently ‘have a go’ at literacy activities  
• Interviewees believe that children had started to ‘make the link’ between what they were being taught and becoming readers and writers  
• Achieving success in using strategies identified as having a knock-on effect on children’s motivation  
• A range of evidence offered to support the above claims |
## Table 3: Classteachers’ Perceptions Category: Impact on Staff and related sub-categories

<table>
<thead>
<tr>
<th>School</th>
<th>Restriction and Control</th>
<th>Participation and Enthusiasm</th>
<th>Self-esteem/Confidence</th>
</tr>
</thead>
</table>
| 1      | • Repeated references to the theme of teaching profession facing ‘restriction and control’  
• Feelings of pressure to follow ‘trends in literacy teaching’  
• While they welcomed project recommendations some viewed them as another imposed ‘trend’;  
• Some felt project recommendations offered more freedom of choice for staff  
• Identified restrictions experienced during career associated with having to use particular materials | • Increased feelings of anxiety and pressure in connection with the amount of work to be covered  
• Repeated positive references associated with involvement in the intervention project  
• Staff unified in their statements of enthusiasm for the initiative  
• ‘Storytelling culture’ identified | • Positive impact of the project on CT’s self-esteem and confidence spontaneously reported  
• ‘Cycle of success’ and developing sense of ownership of the project recommendations amongst the reasons given for the above  
• Claims of new found confidence in understanding research findings and theoretical framework underpinning project recommendations |
| 2      | • References to the theme of teaching profession facing ‘restriction and control’  
• Feelings of pressure to follow ‘trends in literacy teaching’  
• Identified restrictions experienced during career associated with having to use particular materials | • Increased feelings of anxiety and pressure in connection with the amount of work to be covered  
• Some positive references associated with involvement in the intervention project | • No comments in this category |
| 3      | • References to the theme of teaching profession facing ‘restriction and control’  
• Feelings of pressure to follow ‘trends in literacy teaching’  
• Identified restrictions experienced during career associated with having to use particular materials | • Increased feelings of anxiety and pressure in connection with the amount of work to be covered  
• Repeated positive references associated with involvement in the intervention project  
• Staff unified in their statements of enthusiasm for the initiative  
• ‘Storytelling culture’ identified | • Positive impact of the project on CT’s self-esteem and confidence spontaneously reported  
• ‘Cycle of success’ and developing sense of ownership of the project recommendations amongst the reasons given for the above  
• Claims of new found confidence in understanding research findings and theoretical framework underpinning project recommendations |
| 4      | • References to the theme of teaching profession facing ‘restriction and control’  
• Feelings of pressure to follow ‘trends in literacy teaching’  
• Identified restrictions experienced during career associated with having to use particular materials | • Increased feelings of anxiety and pressure in connection with the amount of work to be covered  
• Some positive references associated with involvement in the intervention project | • No comments in this category |
| 5      | • Repeated references to the theme of teaching profession facing ‘restriction and control’  
• Feelings of pressure to follow ‘trends in literacy teaching’  
• Project recommendations also identified as an imposed ‘trend’  
• Identified restrictions experienced during career associated with having to use particular materials | • Increased feelings of anxiety and pressure in connection with the amount of work to be covered  
• Some positive references associated with involvement in the intervention project | • No comments in this category |
| 6      | • Brief reference to the theme of teaching profession facing ‘restriction and control’  
• Identified restrictions experienced during career associated with having to use particular materials | • Increased feelings of anxiety and pressure in connection with the amount of work to be covered  
• Repeated positive references associated with involvement in the intervention project  
• Staff unified in their statements of enthusiasm for the initiative  
• ‘Storytelling culture’ identified | • Positive impact of the project on CT’s self-esteem and confidence spontaneously reported  
• ‘Cycle of success’ and developing sense of ownership of the project recommendations amongst the reasons given for the above  
• Claims of new found confidence in understanding research findings and theoretical framework underpinning project recommendations  
• Co-operative teaching with HT and related feedback had led to increased CT confidence and new in-sights to practice |
### Table 4: Classteacher's Perceptions Category: Staff Development and related sub-categories

<table>
<thead>
<tr>
<th>School</th>
<th>Outside Agent</th>
<th>Strategies Mentioned from Staff Development Sessions</th>
<th>Diary Writing as an Aid to Reflection and the Implementation of the Project</th>
</tr>
</thead>
</table>
| 1      | Spontaneous comments that involvement with staff development team had helped to initiate the changes made to the methodology used in the teaching of literacy  
Visits to school, by staff development team, welcomed | CT's demonstrate a comprehensive knowledge of the main project recommendations  
CT's mention attempts to develop some of the project's recommendations | Comments that the process of keeping a diary helped to monitor the implementation of the project  
Comments that involvement in the process of diary writing had supported and promoted reflection |
| 2      | No explicit references made to the role of the staff development team | CT's demonstrate a comprehensive knowledge of the main project recommendations  
CT's mention attempts to develop some of the project's recommendations | No comments made in this category |
| 3      | Spontaneous comments that involvement with staff development team had helped to initiate the changes made to the methodology used in the teaching of literacy  
Visits to school, by staff development team, welcomed | CT's demonstrate a comprehensive knowledge of the main project recommendations  
CT's mention attempts to develop some of the project's recommendations | Comments that the process of keeping a diary helped to monitor the implementation of the project  
Comments that involvement in the process of diary writing had supported and promoted reflection |
| 4      | No explicit references made to the role of the staff development team | CT's demonstrate a comprehensive knowledge of the main project recommendations  
CT's mention attempts to develop some of the project's recommendations | No comments made in this category |
| 5      | No explicit references made to the role of the staff development team | CT's demonstrate a comprehensive knowledge of the main project recommendations  
CT's mention attempts to develop some of the project's recommendations | No diaries kept |
| 6      | Spontaneous comments that involvement with staff development team had helped to initiate the changes made to the methodology used in the teaching of literacy  
Visits to school, by staff development team, welcomed | CT's demonstrate a comprehensive knowledge of the main project recommendations  
CT's mention attempts to develop some of the project's recommendations | Comments that the process of keeping a diary helped to monitor the implementation of the project  
Comments that involvement in the process of diary writing had supported and promoted reflection |

* See also Category Change in Practice. Sub-category: Methodology, Content and Resources.
<table>
<thead>
<tr>
<th>School</th>
<th>Pressure/Overload</th>
<th>Resources</th>
<th>Lack of Formal Opportunities for Collaboration</th>
</tr>
</thead>
</table>
| 1      | • Involvement in the intervention had added to their existing feelings of being under pressure from a range of factions  
   • The 'already overloaded curriculum' was highlighted  
   • Recommendation that children should be heard reading every day had caused particular time difficulties | • No comments made in this category                                                         | • Formally organised opportunities for collaboration within school identified as lacking  
   • Perception of a marked distinction between informal day to day collaboration and programmed opportunities |
| 2      | • Involvement in the intervention had added to their existing feelings of being under pressure from a range of factions  
   • The 'already overloaded curriculum' was highlighted  
   • Recommendation that children should be heard reading every day had caused particular time difficulties | • Some comments about lack of new resources.                                                | • No references to programmed in-school opportunities for collaboration or evidence that they were thought to be necessary |
| 3      | • Involvement in the intervention had added to their existing feelings of being under pressure from a range of factions  
   • The 'already overloaded curriculum' was highlighted  
   • Recommendation that children should be heard reading every day had caused particular time difficulties | • Some comments about lack of new resources.                                                | • Some formal opportunities for collaboration discussed in terms of having been useful in supporting the implementation of the project |
| 4      | • Involvement in the intervention had added to their existing feelings of being under pressure from a range of factions  
   • The 'already overloaded curriculum' was highlighted  
   • Recommendation that children should be heard reading every day had caused particular time difficulties | • Report of a huge amount of resources purchased, but the need for a reading scheme to be purchased was highlighted | • No references to programmed in-school opportunities for collaboration or evidence that they were thought to be necessary |
| 5      | • Involvement in the intervention had added to their existing feelings of being under pressure from a range of factions  
   • The 'already overloaded curriculum' was highlighted  
   • Recommendation that children should be heard reading every day had caused particular time difficulties | • No comments made in this category                                                         | • No references to programmed in-school opportunities for collaboration or evidence that they were thought to be necessary |
| 6      | • Involvement in the intervention had added to their existing feelings of being under pressure from a range of factions  
   • The 'already overloaded curriculum' was highlighted  
   • Recommendation that children should be heard reading every day had caused particular time difficulties | • No comments made in this category                                                         | • Some formal opportunities for collaboration discussed in terms of having been useful in supporting the implementation of the project |
Headteacher Interview Schedule

In your opinion what has been the impact of the intervention on the cluster as a whole?

Issues for consideration:
- collaboration among schools
- policy making
- implications for continuity and commonality of experience

What was has been the impact of the intervention on your school?

Issues for consideration:
- management time
- curriculum balance
- staff development
- parental involvement
- school ethos
- deployment of staff
- budget
- resource purchase and allocation
- involvement of outside agencies
- new links with other agencies
- parental involvement

What has been the impact of the intervention on classroom practice?

Issues for consideration:
- changes in methodology
- curriculum balance
- organisation of the day
- organisation of groups
- use of resources
- use of space
- other adults working in the classroom
- time spent on literacy activities
- the quality of teaching and learning
What has been the impact of the intervention on the staff?

- collaboration among staff
- teacher involvement and enthusiasm for the project
- professional development

What has been the impact of the project on the children?
Issues for consideration:
- progress in reading attainment
- progress in writing attainment
- awareness of print
- motivation
- collaboration between classes
- attitude towards involvement in literacy activities

Which do you think have been the most successful elements?
Which do you think have been the least successful elements?
Have there been any unexpected outcomes?
Are there any aspects of the project which you would change if you were to begin again?
Is there any advice you would give schools embarking on a similar intervention?
How do you see the intervention developing next year?
Do you have any ideas for maintaining the momentum?
Finally, how important and or, successful, do you rate this project in relation to other initiatives which you have set up at this school?
<table>
<thead>
<tr>
<th>School</th>
<th>Commitment to the initiative</th>
<th>Active management/leadership role</th>
<th>Collaboration</th>
</tr>
</thead>
</table>
| 1      | • Evidence to support claims of backing initiative  
        • Impetus for setting up intervention project perceived to have arisen from 'the very real needs' of children in cluster schools  
        • HT discussed 'personal purpose' as the motivating force behind their own involvement in the project | • Believed it was their responsibility to lead the implementation  
• Spoke at length about this in terms of inspiring staff  
• Emphasised the importance of establishing common commitment to the aims from the start  
• Majority of management time given over to implementing early intervention project  
• Resulted in more focused use of management time  
• Belief that it is the role of HT to support the project's implementation | • Supportive nature of working together as a cluster group in setting up and managing the project  
• Cluster provided support for the development of the policy statement: Key Principles of Literacy  
• Involvement in the process enhanced collaboration  
• Identified missed opportunity for more collaboration with outside agencies in writing policy document  
• Emphasised the importance of identifying the needs of individual schools |
| 2      | • Evidence to support claims of backing initiative  
        • Impetus for setting up intervention project perceived to have arisen from 'the very real needs' of children in cluster schools  
        • HT discussed 'personal purpose' as the motivating force behind their own involvement in the project | • Believed it was their responsibility to lead the implementation  
• Majority of management time given over to implementing early intervention project  
• Belief that it is the role of HT to support the project's implementation | • Supportive nature of working together as a cluster group in setting up and managing the project  
• Cluster provided support for the development of the policy statement: Key Principles of Literacy  
• Involvement in the process enhanced collaboration  
• Emphasised the importance of identifying the needs of individual schools |
| 3      | • Evidence to support claims of backing initiative  
        • Impetus for setting up intervention project perceived to have arisen from 'the very real needs' of children in cluster schools  
        • HT discussed 'personal purpose' as the motivating force behind their own involvement in the project | • Believed it was their responsibility to lead the implementation  
• Emphasised the importance of establishing common commitment to the aims from the start  
• Majority of management time given over to implementing early intervention project  
• Resulted in more focused use of management time  
• Belief that it is the role of HT to support the project's implementation | • Supportive nature of working together as a cluster group in setting up and managing the project  
• Cluster provided support for the development of the policy statement: Key Principles of Literacy  
• Involvement in the process enhanced collaboration  
• Emphasised the importance of identifying the needs of individual schools |
| 4      | • Evidence to support claims of backing initiative  
        • Impetus for setting up intervention project perceived to have arisen from 'the very real needs' of children in cluster schools  
        • HT discussed 'personal purpose' as the motivating force behind their own involvement in the project | • Believed it was their responsibility to lead the implementation  
• Majority of management time given over to implementing early intervention project  
• Resulted in more focused use of management time  
• Belief that it is the role of HT to support the project's implementation | • Supportive nature of working together as a cluster group in setting up and managing the project  
• Cluster provided support for the development of the policy statement: Key Principles of Literacy  
• Involvement in the process enhanced collaboration  
• Emphasised the importance of identifying the needs of individual schools |
| 5      | • Evidence to support claims of backing initiative  
        • Impetus for setting up intervention project perceived to have arisen from 'the very real needs' of children in cluster schools  
        • HT discussed 'personal purpose' as the motivating force behind their own involvement in the project | • Believed it was their responsibility to lead the implementation  
• Emphasised the importance of establishing common commitment to the aims from the start  
• Majority of management time given over to implementing early intervention project  
• Belief that it is the role of HT to support the project's implementation | • Supportive nature of working together as a cluster group in setting up and managing the project  
• Cluster provided support for the development of the policy statement: Key Principles of Literacy  
• Involvement in the process enhanced collaboration |
| 6      | • Evidence to support claims of backing initiative  
        • Impetus for setting up intervention project perceived to have arisen from 'the very real needs' of children in cluster schools  
        • HT discussed 'personal purpose' as the motivating force behind their own involvement in the project | • Believed it was their responsibility to lead the implementation  
• Spoke at length about this in terms of inspiring staff  
• Emphasised the importance of establishing common commitment to the aims from the start  
• Majority of management time given over to implementing early intervention project  
• Resulted in more focused use of management time  
• Belief that it is the role of HT to support the project's implementation talking with teachers the key strategy | • Supportive nature of working together as a cluster group in setting up and managing the project  
• Cluster provided support for the development of the policy statement: Key Principles of Literacy  
• Involvement in the process enhanced collaboration  
• Emphasised the importance of identifying the needs of individual schools |
## Table 2A Category: Change in Practice and related sub-categories

<table>
<thead>
<tr>
<th>School</th>
<th>Curriculum Balance</th>
<th>Methodology/Content/Resources</th>
<th>Classroom Organisation</th>
<th>Quality of Teaching &amp; Learning</th>
</tr>
</thead>
</table>
| 1      | • Shift toward literacy  
       • HT in agreement with this change  
       • Less time spent on other areas  
|        | • Greater emphasis on teaching literacy skills  
       • Positive impact of change in methodology used in the teaching of writing  
       • ‘Hearing reading’ a priority  
       • New focus on teaching letter knowledge and increased exposure to print  
       • Significant increase in literacy resources | • Changes to the organisation of the day  
       • Changes in organisation necessary because of extra adults in class  
       • Literacy instruction now always undertaken in the mornings  
       • Blocks of time dedicated to literacy activities | • Quality high before intervention  
       • Quality of a learning improved  
       • Increase in teacher expectations  
       • Evidence of this gathered through discussion and observation |
| 2      | • Shift toward literacy  
       • HT in agreement with this change  
       • Class teachers voiced major concerns  
       • Less time spent on other areas  
|        | • Greater emphasis on teaching literacy skills  
       • Positive impact of change in methodology used in the teaching of writing  
       • ‘Hearing reading’ a priority  
       • New focus on teaching letter knowledge and increased exposure to print  
       • Significant increase in literacy resources | • Organisation remained the same  
       • Literacy instruction now always undertaken in the mornings | • Quality high before intervention  
       • A greater consistency amongst classes |
| 3      | • Shift toward literacy  
       • HT in agreement with this change  
       • Class teachers voiced major concerns  
       • Less time spent on other areas  
|        | • Greater emphasis on teaching literacy skills  
       • Positive impact of change in methodology used in the teaching of writing  
       • ‘Hearing reading’ a priority  
       • New focus on teaching letter knowledge and increased exposure to print  
       • A small increase in literacy resources | • Changes to the organisation of the day  
       • Literacy instruction now always undertaken in the mornings  
       • Blocks of time dedicated to literacy activities | • Quality high before intervention  
       • More focused  
       • Increase in teacher expectations  
       • Evidence of this gathered through discussion and observation |
| 4      | • Shift toward literacy  
       • HT in agreement with this change  
       • Class teachers voiced major concerns  
       • Less time spent on other areas  
|        | • Greater emphasis on teaching literacy skills  
       • Positive impact of change in methodology used in the teaching of writing  
       • ‘Hearing reading’ a priority  
       • New focus on teaching letter knowledge and increased exposure to print  
       • Some reservations expressed about changes in practice  
       • Significant increase in literacy resources | • Changes to the organisation of the day  
       • Changes in organisation necessary because of extra adults in class  
       • Not in favour of blocking curriculum time | • Quality high before intervention |
| 5      | • Shift toward literacy  
       • HT in agreement with this change  
       • Less time spent on other areas  
|        | • Greater emphasis on teaching literacy skills  
       • Positive impact of change in methodology used in the teaching of writing  
       • ‘Hearing reading’ a priority  
       • New focus on teaching letter knowledge and increased exposure to print  
       • Significant increase in literacy resources | • Changes to the organisation of the day  
       • Changes in organisation necessary because of extra adults in class  
       • Literacy instruction now always undertaken in the mornings  
       • Blocks of time dedicated to literacy activities | • Quality high before intervention  
       • Range of activities has had a beneficial effect  
       • More focused  
       • Evidence of this gathered through discussion and observation |
| 6      | • Shift toward literacy  
       • HT in agreement with this change  
       • Class teachers voiced major concerns  
|        | • Greater emphasis on teaching literacy skills  
       • Positive impact of change in methodology used in the teaching of writing  
       • ‘Hearing reading’ a priority  
       • New focus on teaching letter knowledge and increased exposure to print  
       • Significant increase in literacy resources | • Changes to the organisation of the day  
       • Changes in organisation necessary because of extra adults in class  
       • Blocks of time dedicated to literacy activities | • Quality high before intervention  
       • Increase in teacher expectations  
       • Improvement in quality - reference development plan as a source of evidence for this  
       • Evidence of this gathered through discussion and observation |
Table 2A Category: Change in Practice and Related Sub Categories

<table>
<thead>
<tr>
<th>School</th>
<th>Effect of Previous Beliefs</th>
<th>Deployment of Staff</th>
<th>Involvement with Outside Agencies</th>
</tr>
</thead>
</table>
| 1      | • Spontaneous reference made to previous beliefs about teaching and learning of literacy skills  
        • Change in belief concerning effective methodology for the teaching of writing  
        • Staff development advice in accordance with previous beliefs concerning the teaching of reading | • Learning support provision now focused in the infant classes  
        • Learning support provision now mainly at the primary 4 - 7 stage only for referred pupils  
        • HT involved in literacy teaching in infant classes  
        • Home-link teacher now focusing on literacy work  
        • New nursery nurse post created by HT  
        • All changes seen as positive by HT | • No new links in the community  
        • Developer/Researcher  
        • Developer/Psychologist  
        • HT initiated change in role of agency already involved with school |
| 2      | • Spontaneous reference made to previous beliefs about teaching and learning of literacy skills  
        • Change in belief concerning effective methodology for the teaching of writing  
        • Staff development advice in accordance with previous beliefs concerning the teaching of reading | • Learning support provision now focused in the infant classes  
        • Learning support provision totally withdrawn from the primary 4 - 7 stage  
        • HT involved in literacy teaching in infant classes  
        • New nursery nurse post created by HT  
        • All changes seen as positive by HT | • No new links  
        • HT initiated change in role of agency already involved with school |
| 3      | • Spontaneous reference made to previous beliefs about teaching and learning of literacy skills  
        • Confirmation of personal belief concerning effective methodology for the teaching of writing | • Learning support provision now focused in the infant classes  
        • Learning support provision totally withdrawn from the primary 4 - 7 stage  
        • All changes seen as positive by HT | • Developer/Researcher  
        • Developer/Psychologist  
        • HT initiated change in role of agency already involved with school |
| 4      | • Spontaneous reference made to previous beliefs about teaching and learning of literacy skills  
        • Change in belief concerning effective methodology for the teaching of writing  
        • Staff development advice in accordance with previous beliefs concerning the teaching of reading | • Learning support provision now focused in the infant classes  
        • Learning support provision withdrawn from the primary 4 - 7 stage for a term  
        • HT involved in literacy teaching in infant classes  
        • New nursery nurse post created by HT  
        • Some concern about number of personnel in class | • No new links  
        • Re-establishing links with library  
        • HT initiated change in role of agency already involved with school |
| 5      | • Spontaneous reference made to previous beliefs about teaching and learning of literacy skills  
        • Confirmation of personal belief concerning effective methodology for the teaching of writing | • Learning support provision now focused in the infant classes  
        • Learning support provision now mainly on a consultative basis at the primary 4 - 7 stage  
        • Redeployed nursery nurse  
        • All changes seen as positive by HT | • No new links  
        • Re-establishing links with library  
        • HT initiated change in role of agency already involved with school |
| 6      | • Spontaneous reference made to previous beliefs about teaching and learning of literacy skills  
        • Confirmation of personal belief concerning effective methodology for the teaching of writing  
        • Staff development advice in accordance with previous beliefs concerning the teaching of reading | • Learning support provision now focused in the infant classes  
        • Learning support provision now mainly on a consultative basis at the primary 4 - 7 stage  
        • HT involved in literacy teaching in infant classes  
        • All changes seen as positive by HT | • Student tutors  
        • Re-establishing links with library  
        • HT initiated change in role of agency already involved with school  
        • Developer/Researcher  
        • Developer/Psychologist |
<table>
<thead>
<tr>
<th>School</th>
<th>Parental Involvement</th>
</tr>
</thead>
</table>
| 1      | • Involvement thought to be important  
|        | • Belief that it is the school’s responsibility to support this  
|        | • New approaches introduced as part of the intervention  
|        | • Measures taken to inform parents about the literacy initiative  
|        | • Advice given about how reading taught  
|        | • Advice about how writing is taught identified as a new development  
|        | • More explicit advice given than in the past  
|        | • No increase in parental involvement  
|        | • Highlighted on-going difficulties  |
| 2      | • Involvement thought to be important  
|        | • Belief that it is the school’s responsibility to support this  
|        | • New approaches introduced as part of the intervention  
|        | • Measures taken to inform parents about the literacy initiative  
|        | • Advice given about how reading taught  
|        | • More explicit advice given than in the past  
|        | • Plans for the next session  
|        | • Slight increase in parental involvement  
|        | • Highlighted on-going difficulties  |
| 3      | • Involvement thought to be important  
|        | • Belief that it is the school’s responsibility to support this  
|        | • New approaches introduced as part of the intervention  
|        | • Measures taken to inform parents about the literacy initiative  
|        | • Advice given about how reading taught  
|        | • More explicit advice given than in the past  
|        | • Plans for the next session  
|        | • Considerable increase in parental involvement  
|        | • Highlighted on-going difficulties  |
| 4      | • Involvement thought to be important  
|        | • Belief that it is the school’s responsibility to support this  
|        | • New approaches introduced as part of the intervention  
|        | • Measures taken to inform parents about the literacy initiative  
|        | • Advice given about how reading taught  
|        | • Advice about how writing is taught identified as a new development  
|        | • More explicit advice given than in the past  
|        | • Plans for the next session  
|        | • No increase in parental involvement but quality very good  
|        | • Highlighted on-going difficulties  |
| 5      | • Involvement thought to be important  
|        | • Belief that it is the school’s responsibility to support this  
|        | • New approaches introduced as part of the intervention  
|        | • Measures taken to inform parents about the literacy initiative  
|        | • Advice given about how reading taught  
|        | • More explicit advice given than in the past  
|        | • Plans for the next session  
|        | • Slight increase in parental involvement  
|        | • Highlighted on-going difficulties  |
| 6      | • Involvement thought to be important  
|        | • Belief that it is the school’s responsibility to support this  
|        | • New approaches introduced as part of the intervention  
|        | • Measures taken to inform parents about the literacy initiative  
|        | • Advice given about how reading taught  
|        | • Advice about how writing is taught identified as a new development  
|        | • More explicit advice given than in the past  
|        | • Plans for the next session  
|        | • Considerable increase in parental involvement  
|        | • Highlighted on-going difficulties  |
### School Motivation and Active Table 3A

<table>
<thead>
<tr>
<th>School</th>
<th>Motivation and Active Involvement</th>
<th>Progress and Achievement</th>
</tr>
</thead>
</table>
| 1      | • Strong positive impact on children's motivation towards involvement in literacy activities.  
       | • Considerable increase in self-directed involvement in literacy activities.  
       | • Emphasised link between increased motivation and success.  
       | • Importance of teacher's role highlighted.  
       | • Increased expectations identified.  
       | • Developing children's self-esteem by explicitly acknowledging their achievements in literacy.  
       | • HT identified positive effects of older children working on literacy activities with younger pupils. | • Believed that the project was having a positive impact on progress and levels of literacy achievement.  
       | • Progress in writing particularly significant.  
       | • Positive impact on children's reading.  
       | • Progress still poor in relation to 5-14 national test.  
       | • A group of children identified with intractable difficulties.  
       | • A widening gap identified in pupils' levels of achievement.  
       | • Supported by teachers' increased expectation. |
| 2      | • Strong positive impact on children's motivation towards involvement in literacy activities.  
       | • Considerable increase in self-directed involvement in literacy activities.  
       | • Emphasised link between increased motivation and success.  
       | • Importance of teacher's role highlighted.  
       | • Increased expectations identified.  
       | • Developing children's self-esteem by explicitly acknowledging their achievements in literacy.  
       | • HT identified positive effects of older children working on literacy activities with younger pupils. | • Believed that the project was having a positive impact on progress and levels of literacy achievement.  
       | • Progress in writing particularly significant.  
       | • Positive impact on children's reading.  
       | • A group of children identified with intractable difficulties.  
       | • A widening gap identified in pupils' levels of achievement.  
       | • More children 'doing reasonably well'.  
       | • Supported by teachers' increased expectation. |
| 3      | • Strong positive impact on children's motivation towards involvement in literacy activities.  
       | • Considerable increase in self-directed involvement in literacy activities.  
       | • Emphasised link between increased motivation and success.  
       | • Importance of teacher's role highlighted.  
       | • Increased expectations identified.  
       | • Developing children's self-esteem by explicitly acknowledging their achievements in literacy.  
       | • HT identified positive effects of older children working on literacy activities with younger pupils. | • Believed that the project was having a positive impact on progress and levels of literacy achievement.  
       | • Progress in writing particularly significant.  
       | • Positive impact on children's reading.  
       | • A group of children identified with intractable difficulties.  
       | • More children 'doing reasonably well'.  
       | • Supported by teachers' increased expectation. |
| 4      | • Strong positive impact on children's motivation towards involvement in literacy activities.  
       | • Considerable increase in self-directed involvement in literacy activities.  
       | • Importance of teacher's role highlighted. | • Believed that the project was having a positive impact on progress and levels of literacy achievement.  
       | • Progress in writing particularly significant.  
       | • More children 'doing reasonably well'.  
       | • A widening gap identified in pupils' levels of achievement. |
| 5      | • Strong positive impact on children's motivation towards involvement in literacy activities.  
       | • Considerable increase in self-directed involvement in literacy activities.  
       | • Importance of teacher's role highlighted. | • Believed that the project was having a positive impact on progress and levels of literacy achievement.  
       | • Progress in writing particularly significant.  
       | • Positive impact on children's reading.  
       | • A group of children identified with intractable difficulties.  
       | • A widening gap identified in pupils' levels of achievement. |
| 6      | • Strong positive impact on children's motivation towards involvement in literacy activities.  
       | • Considerable increase in self-directed involvement in literacy activities.  
       | • Emphasised link between increased motivation and success.  
       | • Increased expectations identified.  
       | • Importance of teacher's role highlighted.  
       | • Developing children's self-esteem by explicitly acknowledging their achievements in literacy.  
       | • HT identified positive effects of older children working on literacy activities with younger pupils. | • Believed that the project was having a positive impact on progress and levels of literacy achievement.  
       | • Progress in writing particularly significant.  
       | • Positive impact on children's reading.  
       | • More children 'doing reasonably well'. |
## Table 3B Category: Impact on Children and related sub-categories

<table>
<thead>
<tr>
<th>School</th>
<th>Reading, Writing &amp; Awareness of print</th>
<th>Awareness of Strategies/Disposition to Use Strategies</th>
</tr>
</thead>
</table>
| 1      | - Considerable increase in children’s print awareness  
        - Increased knowledge and awareness of the sounds in words  
        - Belief that the project had impacted positively on children’s writing  
        - Writing materials incorporated in play areas and children observed making use of them  
        - Increase in children’s writing displayed around the school  
        - Children involved in more writing activities  
        - Children involved in more reading activities with adults than before | - A significant change reported in children’s reading and writing behaviour  
- Children demonstrating an awareness of the literacy strategies and skills that had been taught  
- Children making use of the strategies and skills they had been taught  
- Observations of children and discussions with classteachers given as evidence to support these claims  
- More explicit and systematic teaching of literacy cited as the reason for this development |
| 2      | - Considerable increase in children’s print awareness  
        - Increased knowledge and awareness of the sounds in words  
        - Belief that the project had impacted positively on children’s writing  
        - Children involved in more writing activities  
        - Children involved in more reading activities with adults than before | - No reference to this theme |
| 3      | - Considerable increase in children’s print awareness  
        - Increased knowledge and awareness of the sounds in words  
        - Belief that the project had impacted positively on children’s writing  
        - Writing materials incorporated in play areas and children observed making use of them  
        - Increase in children’s writing displayed around the school  
        - Children involved in more writing activities  
        - Children involved in more reading activities with adults than before | - A significant change reported in children’s reading and writing behaviour  
- Children demonstrating an awareness of the literacy strategies and skills that had been taught  
- Children making use of the strategies and skills they had been taught  
- Observations of children and discussions with classteachers given as evidence to support these claims  
- More explicit and systematic teaching of literacy cited as the reason for this development |
| 4      | - Considerable increase in children’s print awareness  
        - Belief that the project had impacted positively on children’s writing  
        - Children involved in more writing activities  
        - Children involved in more reading activities with adults than before | - No reference to this theme |
| 5      | - Considerable increase in children’s print awareness  
        - Increased knowledge and awareness of the sounds in words  
        - Belief that the project had impacted positively on children’s writing  
        - Children involved in more writing activities  
        - Children involved in more reading activities with adults than before | - No reference to this theme |
| 6      | - Considerable increase in children’s print awareness  
        - Increased knowledge and awareness of the sounds in words  
        - Belief that the project had impacted positively on children’s writing  
        - All interviewees felt that the project had impacted positively on children's writing  
        - Writing materials incorporated in play areas and children observed making use of them  
        - Increase in children’s writing displayed around the school  
        - Children involved in more writing activities  
        - Children involved in more reading activities with adults than before | - A significant change reported in children’s reading and writing behaviour  
- Children demonstrating an awareness of the literacy strategies and skills that had been taught  
- Children making use of the strategies and skills they had been taught  
- Observations of children and discussions with classteachers given as evidence to support these claims  
- More explicit and systematic teaching of literacy cited as the reason for this development |
### Table 4A Category: Impact on Staff and related sub-categories

<table>
<thead>
<tr>
<th>School</th>
<th>Collaboration</th>
</tr>
</thead>
</table>
| 1      | • Setting up the project had promoted and increased levels of collaboration amongst staff within and between schools  
        • Increased collaboration had impacted positively on school ethos  
        • Staff development model promoted collaboration amongst the schools  
        • Whole-school approach promoted collaboration and the sense of everyone working towards a common goal  
        • Staff meetings organised to offer a forum for discussion  
        • Joint planning sessions initiated  
        • A range of collaborative activities initiated by staff  
        • Collaboration was a support for staff and boosted confidence  
        • Increase in professional dialogue amongst staff |
| 2      | • Setting up the project had promoted and increased levels of collaboration amongst staff within and between schools  
        • Increased collaboration had impacted positively on school ethos  
        • Staff development model promoted collaboration amongst the schools  
        • Whole-school approach promoted collaboration and the sense of everyone working towards a common goal  
        • Systems in place to allow staff to visit other schools in the cluster  
        • Collaboration was a support for staff and boosted confidence |
| 3      | • Setting up the project had promoted and increased levels of collaboration amongst staff within and between schools  
        • Increased collaboration had impacted positively on school ethos  
        • Staff development model promoted collaboration amongst the schools  
        • Whole-school approach promoted collaboration and the sense of everyone working towards a common goal  
        • Staff meetings organised to offer a forum for discussion  
        • Joint planning sessions initiated  
        • A range of collaborative activities initiated by staff  
        • Collaboration was a support for staff and boosted confidence  
        • Increase in professional dialogue amongst staff |
| 4      | • Setting up the project had promoted and increased levels of collaboration amongst staff within and between schools  
        • Increased collaboration had impacted positively on school ethos  
        • Staff development model promoted collaboration amongst the schools  
        • Whole-school approach promoted collaboration and the sense of everyone working towards a common goal |
| 5      | • Setting up the project had promoted and increased levels of collaboration amongst staff within and between schools  
        • Increased collaboration had impacted positively on school ethos  
        • Staff development model promoted collaboration amongst the schools  
        • Whole-school approach promoted collaboration and the sense of everyone working towards a common goal  
        • Staff meetings organised to offer a forum for discussion  
        • A range of collaborative activities initiated by staff  
        • Collaboration was a support for staff and boosted confidence  
        • Increase in professional dialogue amongst staff |
| 6      | • Setting up the project had promoted and increased levels of collaboration amongst staff within and between schools  
        • Increased collaboration had impacted positively on school ethos  
        • Staff development model promoted collaboration amongst the schools  
        • Whole-school approach promoted collaboration and the sense of everyone working towards a common goal  
        • Staff meetings organised to offer a forum for discussion  
        • Joint planning sessions continued  
        • Systems in place to allow staff to visit other classes in the school  
        • A range of collaborative activities initiated by staff  
        • Collaboration was a support for staff and boosted confidence  
        • Increase in professional dialogue amongst staff |
<table>
<thead>
<tr>
<th>School</th>
<th>Self Esteem/Confidence</th>
<th>Enthusiasm and Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Increased self-esteem/confidence as a result of participation in the project</td>
<td>Highlighted the quality and extent of their positive involvement</td>
</tr>
<tr>
<td></td>
<td>Sense of pride about having initiated the development</td>
<td>Staff personally having identified children’s progress in literacy learning as a focus for development, seen as a major reason for their willingness to take part in the intervention</td>
</tr>
<tr>
<td></td>
<td>In-service training contributed to the professional development and confidence of staff</td>
<td>Cycle of positive reinforcement identified</td>
</tr>
<tr>
<td></td>
<td>Positive impact on self-esteem of staff who were invited to give presentations about their work during the project</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HT described feelings of pride when listening to staff presentations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Opportunities for discussion and collaboration with colleagues supported confidence building</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Increased self-esteem/confidence as a result of participation in the project</td>
<td>Highlighted the quality and extent of their positive involvement</td>
</tr>
<tr>
<td></td>
<td>Sense of pride about having initiated the development</td>
<td>Staff personally having identified children’s progress in literacy learning as a focus for development, seen as a major reason for their willingness to take part in the intervention</td>
</tr>
<tr>
<td></td>
<td>In-service training contributed to the professional development and confidence of staff</td>
<td>Cycle of positive reinforcement identified</td>
</tr>
<tr>
<td></td>
<td>Opportunities for discussion and collaboration with colleagues supported confidence building</td>
<td>Fears that staff might view the initiative in terms of workload issues unfounded</td>
</tr>
<tr>
<td>3</td>
<td>Increased self-esteem/confidence as a result of participation in the project</td>
<td>Highlighted the quality and extent of their positive involvement</td>
</tr>
<tr>
<td></td>
<td>Sense of pride about having initiated the development</td>
<td>Staff personally having identified children’s progress in literacy learning as a focus for development, seen as a major reason for their willingness to take part in the intervention</td>
</tr>
<tr>
<td></td>
<td>In-service training contributed to the professional development and confidence of staff</td>
<td>Cycle of positive reinforcement identified</td>
</tr>
<tr>
<td></td>
<td>Positive impact on self-esteem of staff who were invited to give presentations about their work during the project</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Opportunities for discussion and collaboration with colleagues supported confidence building</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>In-service training contributed to the professional development and confidence of staff</td>
<td>Highlighted the quality and extent of their positive involvement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Staff personally having identified children’s progress in literacy learning as a focus for development, seen as a major reason for their willingness to take part in the intervention</td>
</tr>
<tr>
<td>5</td>
<td>Increased self-esteem/confidence as a result of participation in the project</td>
<td>Highlighted the quality and extent of their positive involvement</td>
</tr>
<tr>
<td></td>
<td>Sense of pride about having initiated the development</td>
<td>Staff personally having identified children’s progress in literacy learning as a focus for development, seen as a major reason for their willingness to take part in the intervention</td>
</tr>
<tr>
<td></td>
<td>In-service training contributed to the professional development and confidence of staff</td>
<td>Cycle of positive reinforcement identified</td>
</tr>
<tr>
<td></td>
<td>Opportunities for discussion and collaboration with colleagues supported confidence building</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Increased self-esteem/confidence as a result of participation in the project</td>
<td>Highlighted the quality and extent of their positive involvement</td>
</tr>
<tr>
<td></td>
<td>Sense of pride about having initiated the development</td>
<td>Staff personally having identified children’s progress in literacy learning as a focus for development, seen as a major reason for their willingness to take part in the intervention</td>
</tr>
<tr>
<td></td>
<td>In-service training contributed to the professional development and confidence of staff</td>
<td>Cycle of positive reinforcement identified</td>
</tr>
<tr>
<td></td>
<td>Positive impact on self-esteem of staff who were invited to give presentations about their work during the project</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HT described feelings of pride when listening to staff presentations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Opportunities for discussion and collaboration with colleagues supported confidence building</td>
<td></td>
</tr>
<tr>
<td>School</td>
<td>In-service Sessions</td>
<td>Sub-category: Change Agents</td>
</tr>
<tr>
<td>--------</td>
<td>---------------------</td>
<td>-----------------------------</td>
</tr>
</tbody>
</table>
| 1      | • Positive aspects of impact on in-service sessions mentioned  
       • Staff one of the major successes of the project  
       • Adopting a whole-school approach to staff development had impacted positively on collaboration within school  
       • Belief that whole-school approach has the potential to promote continuity and consistency of approach in the teaching of literacy  
       • Including all staff members in training had resulted in a greater understanding and support for decisions taken during project  
       • Whole-cluster involvement in staff development had led to an increase in the communality of approach between schools  
       • Mentioned crucial role played by initial staff development session targeted at management  
       • Research-based content of in-service session identified as having had a positive impact on the professional development of staff | • Highlighted important role of consultant/staff development team in the process of bringing about change in classroom practice  
• Used staff development team as 'an interested party' during discussions with staff |
| 2      | • Positive aspects of impact on in-service sessions mentioned  
       • Adopting a whole-school approach to staff development had impacted positively on collaboration within school  
       • Belief that whole-school approach has the potential to promote continuity and consistency of approach in the teaching of literacy  
       • Whole-cluster involvement in staff development had led to an increase in the communality of approach between schools  
       • Research based content of in-service session identified as having had a positive impact on the professional development of staff | • No mention of change agents |
| 3      | • Positive aspects of impact on in-service sessions mentioned  
       • Staff training one of the major successes of the project  
       • Adopting a whole-school approach to staff development had impacted positively on collaboration within school  
       • Including all members of staff in training had resulted in a greater understanding and support for decisions taken during project  
       • Belief that whole-school approach has the potential to promote continuity and consistency of approach in the teaching of literacy  
       • Highlighted the diverse needs of children in the cluster  
       • Mentioned crucial role played by initial staff development session targeted at management  
       • Research based content of in-service session identified as having had a positive impact on the professional development of staff | • Highlighted important role of consultant/staff development team in the process of bringing about change in classroom practice  
• Belief that involvement of outside agents had promoted changes in practice which HT had been struggling to initiate for some time  
• While acknowledging the impact of outside agents on school practice HT felt in control of the management of the project  
• Used staff development team as 'an interested party' during discussion with staff |
| 4      | • Positive aspects of impact on in-service sessions mentioned  
       • Staff training one of the major successes of the project  
       • Adopting a whole-school approach to staff development had impacted positively on collaboration within school  
       • Whole-cluster involvement in staff development had led to an increase in the communality of approach between schools  
       • Mentioned crucial role played by initial staff development session targeted at management | • Highlighted important role of consultant/staff development team in the process of bringing about change in classroom practice  
• Some reservations expressed about influence demonstrated by consultant/staff development team  
• Referred to own role as an agent of change during the project |
| 5      | • Positive aspects of impact on in-service sessions mentioned  
       • Adopting a whole-school approach to staff development had impacted positively on collaboration within school  
       • Including all members of staff in training had resulted in a greater understanding and support for decisions taken during project  
       • Belief that whole-school approach has the potential to promote continuity and consistency of approach in the teaching of literacy  
       • Whole-cluster involvement in staff development had led to an increase in the communality of approaches between schools  
       • Reservations expressed about the theoretical content in training sessions  
       • Practical advice considered to be more relevant to the needs of staff | • No mention of change agents |
| 6      | • Positive aspects of impact on in-service sessions mentioned  
       • Staff training mentioned as having been one of the major successes of the project  
       • Adopting a whole-school approach to staff development had impacted positively on collaboration within school  
       • Including all members of staff in training had resulted in a greater understanding and support for decisions taken during project  
       • Belief that whole-school approach has the potential to promote continuity and consistency of approach in the teaching of literacy  
       • Highlighted the diverse needs of children in the cluster schools  
       • Mentioned crucial role played by initial staff development session targeted at management  
       • Research based content of in-service session identified as having had a positive impact on the professional development of staff | • Highlighted important role of consultant/staff development team in the process of bringing about change in classroom practice  
• Combination of involvement of outside agents and joint-in-service with staff in other schools had promoted changes in practice which HT had been struggling to initiate for some time  
• While acknowledging the impact of outside agents on school practice HT felt in control of the management of the project  
• Used staff development team as 'an interested party' during discussions with staff  
• Referred to own role as an agent of change during the project |
Table 6 Category: Evaluation/The Way Forward and related sub-categories

<table>
<thead>
<tr>
<th>School</th>
<th>Success of the Initiative</th>
<th>Factors Outwith the Control of the School</th>
<th>Sustaining the Momentum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Project viewed as being very successful and its importance rated very highly</td>
<td>Difficulties as result of the very high percentage of probationary teachers on the staff</td>
<td>Prioritising management time identified as a critical strategy for sustaining the momentum</td>
</tr>
<tr>
<td></td>
<td>• Intervention would have enduring positive effects on children’s literacy acquisition</td>
<td>• Prioritising management time identified as a critical strategy for sustaining the momentum</td>
<td>• Aims for a balance between ‘consolidation’ and ‘development’</td>
</tr>
<tr>
<td></td>
<td>• Improvement in children’s literacy achievement most successful outcome of the project</td>
<td>• HT highlighted the importance of sustaining the gains made during the project</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td></td>
<td>• Positive impact on the professional development of staff identified as being a major success</td>
<td>• Large number of staff changes during the implementation of the project had caused ‘a lot of upset’</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td></td>
<td>• Least successful outcomes identified as being the ‘widening gap’ in children’s achievement, as well as the positive impact on the lowest achieving children</td>
<td>• Budget restrictions prevented HT from providing the complete range of resources</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td></td>
<td>• Development of independent writing skills particularly noteworthy</td>
<td>• HT identified ‘year-on-year’ effect</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td>2</td>
<td>Project viewed as being very successful and its importance rated very highly</td>
<td>Difficulties arose in trying to commit large amounts of management time to project</td>
<td>Prioritising management time identified as a critical strategy for sustaining the momentum</td>
</tr>
<tr>
<td></td>
<td>• Intervention would have enduring positive effects on children’s literacy acquisition</td>
<td>• Budget restrictions prevented HT from providing the complete range of resources</td>
<td>• Aims for a balance between ‘consolidation’ and ‘development’</td>
</tr>
<tr>
<td></td>
<td>• Improvement in children’s literacy achievement most successful outcome of the project</td>
<td>• HT identified ‘year-on-year’ effect</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td></td>
<td>• Positive impact on the professional development of staff identified as being a major success</td>
<td>• Prioritising management time identified as a critical strategy for sustaining the momentum</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td></td>
<td>• HT unable to identify any unsuccessful elements of the project</td>
<td>• Budget restrictions prevented HT from providing the complete range of resources</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td></td>
<td>• Development of independent writing skills particularly noteworthy</td>
<td>• Prioritising management time identified as a critical strategy for sustaining the momentum</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td>3</td>
<td>Project viewed as being very successful and its importance rated very highly</td>
<td>Difficulties arose in trying to commit large amounts of management time to project</td>
<td>Prioritising management time identified as a critical strategy for sustaining the momentum</td>
</tr>
<tr>
<td></td>
<td>• Intervention would have enduring positive effects on children’s literacy acquisition</td>
<td>• Budget restrictions prevented HT from providing the complete range of resources</td>
<td>• Aims for a balance between ‘consolidation’ and ‘development’</td>
</tr>
<tr>
<td></td>
<td>• Improvement in children’s literacy achievement most successful outcome of the project</td>
<td>• HT identified ‘year-on-year’ effect</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td></td>
<td>• Positive impact on the professional development of staff identified as being a major success</td>
<td>• Prioritising management time identified as a critical strategy for sustaining the momentum</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td></td>
<td>• HT unable to identify any unsuccessful elements of the project</td>
<td>• Budget restrictions prevented HT from providing the complete range of resources</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td></td>
<td>• Development of independent writing skills particularly noteworthy</td>
<td>• Prioritising management time identified as a critical strategy for sustaining the momentum</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td>4</td>
<td>Project viewed as being very successful and its importance rated very highly</td>
<td>Difficulties as result of the very high percentage of probationary teachers on the staff</td>
<td>Prioritising management time identified as a critical strategy for sustaining the momentum</td>
</tr>
<tr>
<td></td>
<td>• Intervention would have enduring positive effects on children’s literacy acquisition</td>
<td>• Prioritising management time identified as a critical strategy for sustaining the momentum</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td></td>
<td>• Improvement in children’s literacy achievement most successful outcome of the project</td>
<td>• Budget restrictions prevented HT from providing the complete range of resources</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td></td>
<td>• Positive impact on the professional development of staff identified as being a major success</td>
<td>• Prioritising management time identified as a critical strategy for sustaining the momentum</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td></td>
<td>• HT unable to identify any unsuccessful elements of the project</td>
<td>• Budget restrictions prevented HT from providing the complete range of resources</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td></td>
<td>• Development of independent writing skills particularly noteworthy</td>
<td>• Prioritising management time identified as a critical strategy for sustaining the momentum</td>
<td>• Encourage parental involvement in the development of children’s literacy skills</td>
</tr>
<tr>
<td>5</td>
<td>Project viewed as being very successful and its importance rated very highly</td>
<td>None mentioned</td>
<td>Prioritising management time identified as a critical strategy for sustaining the momentum</td>
</tr>
<tr>
<td></td>
<td>• Improvement in children’s literacy achievement most successful outcome of the project</td>
<td>• None mentioned</td>
<td>• HT highlighted the importance of sustaining the gains made during the project</td>
</tr>
<tr>
<td></td>
<td>• Increase in collaboration amongst staff and increase in learning support provision at the infant stage also named as major successes</td>
<td>• Prioritising management time identified as a critical strategy for sustaining the momentum</td>
<td>• HT highlighted the importance of sustaining the gains made during the project</td>
</tr>
<tr>
<td></td>
<td>• Least successful aspect of project identified as lack of time to ‘work things out with staff’</td>
<td>• Prioritising management time identified as a critical strategy for sustaining the momentum</td>
<td>• HT highlighted the importance of sustaining the gains made during the project</td>
</tr>
<tr>
<td></td>
<td>• Development of independent writing skills particularly noteworthy</td>
<td>• Prioritising management time identified as a critical strategy for sustaining the momentum</td>
<td>• HT highlighted the importance of sustaining the gains made during the project</td>
</tr>
<tr>
<td>6</td>
<td>Project viewed as being very successful and its importance rated very highly</td>
<td>None mentioned</td>
<td>Prioritising management time identified as a critical strategy for sustaining the momentum</td>
</tr>
<tr>
<td></td>
<td>• Intervention would have positive enduring effects on children’s literacy acquisition</td>
<td>• Encourage parental involvement in the development of children’s literacy skills before the children start primary school</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Improvement in children’s literacy achievement, particularly their independent writing skills, seen as the most successful outcome of the project</td>
<td>• Encourage parental involvement in the development of children’s literacy skills before the children start primary school</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Positive impact on the professional development of staff identified as being a major success</td>
<td>• Encourage parental involvement in the development of children’s literacy skills before the children start primary school</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• HT unable to identify any unsuccessful elements of the project</td>
<td>• Encourage parental involvement in the development of children’s literacy skills before the children start primary school</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Development of independent writing skills particularly noteworthy</td>
<td>• Encourage parental involvement in the development of children’s literacy skills before the children start primary school</td>
<td></td>
</tr>
</tbody>
</table>
Cluster Literacy Project

Key Principles for Literacy

To foster a positive, stimulating environment which nurtures confidence, self-esteem and motivation throughout the community.

To encourage, value and support parental involvement and partnership strategies within the community.

To promote literacy as pleasurable, relevant, worthwhile and of lifelong importance.

To provide, through a variety of strategies approaches and resources, differentiated language activities which meet individual needs.

To have high expectations which value and extend previous experience,

To ensure a strong literacy focus in the early years which takes account of linguistic and cognitive development.

To maintain and extend a continuing programme of high quality staff development.

To promote the right of every child to access nursery education provided by appropriately qualified staff.

To prioritise the resourcing of Literacy Development in terms of personnel and materials.
# EARLY INTERVENTION PROJECT

<table>
<thead>
<tr>
<th>Time spent on reading</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing alphabetic knowledge</td>
<td></td>
</tr>
<tr>
<td>Developing phonological skills</td>
<td></td>
</tr>
<tr>
<td>Work on analogies and word patterns</td>
<td></td>
</tr>
<tr>
<td>Independent writing (linked to scribing and &quot;breakthrough&quot; type approach)</td>
<td></td>
</tr>
<tr>
<td>Common words</td>
<td></td>
</tr>
<tr>
<td><strong>WEEK ENDING</strong></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td><strong>Spelling and punctuation</strong></td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td></td>
</tr>
<tr>
<td>Curriculum balance</td>
<td></td>
</tr>
<tr>
<td>Parental involvement</td>
<td></td>
</tr>
<tr>
<td>Involvement of other staff/community members/agencies</td>
<td></td>
</tr>
<tr>
<td>Any other comments</td>
<td></td>
</tr>
</tbody>
</table>

MLJE/25.9.95
Information for Diary Writers

Thank you for agreeing to keep a diary during the implementation of the Early Intervention Project. Your views and perceptions will be central to the qualitative evaluation of the project.

Please try to spend 5 minutes each day making any comments in your diary. The dairy heading will help you to focus on the different elements of the project.

Issues you may wish to consider:

• What changes have you made as a result of this initiative eg
  - resources
  - organisation of groups
  - organisation of the day
  - use of space
  - time allotted to teaching and reading
  - curriculum balance
  - time allotted to literacy activities
  - methodology/strategies

• Have these changes been effective?
• Have there been any unexpected outcomes?
• Which strategies have proved to be most valuable?
• Have there been difficulties in implementing the programme?
• What has been the reaction of the children?
  - concentration
  - behaviour
  - motivation
  - interest
### Category: Strategies discussed

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Number of children mentioning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>School 1 n=(10)</td>
</tr>
<tr>
<td>Using letters/sounds/alphabet</td>
<td>8</td>
</tr>
<tr>
<td>Learning letters/sounds/alphabet</td>
<td>7</td>
</tr>
<tr>
<td>Copying</td>
<td>6</td>
</tr>
<tr>
<td>Practicing</td>
<td>6</td>
</tr>
<tr>
<td>Reading and writing at home</td>
<td>6</td>
</tr>
<tr>
<td>Learning the common words</td>
<td>5</td>
</tr>
<tr>
<td>Writing stories</td>
<td>5</td>
</tr>
<tr>
<td>Listening to stories/being read to</td>
<td>2</td>
</tr>
<tr>
<td>Asking for help</td>
<td>3</td>
</tr>
<tr>
<td>Looking at the pictures</td>
<td>1</td>
</tr>
</tbody>
</table>
Appendix 10

Category: Children's perceptions of, and explanations for, any differences in their literacy ability at nursery and primary school

![Bar Chart]

Total number of children mentioning in Schools 1+3+6 n=(30)

Table 2
Category: Children’s perceptions of and explanations for, any differences in their literacy ability at nursery and primary school

<table>
<thead>
<tr>
<th>Differences and explanations</th>
<th>Number of children mentioning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>School 1 n=(10)</td>
</tr>
<tr>
<td>Age and expectations</td>
<td>9</td>
</tr>
<tr>
<td>Different functions of nursery and primary schools</td>
<td>9</td>
</tr>
<tr>
<td>Learning/having been taught</td>
<td>6</td>
</tr>
<tr>
<td>Play and work</td>
<td>7</td>
</tr>
<tr>
<td>Knowledge of letters/sounds/alphabet</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix 10

Category: Children’s concepts of reading and writing

Table 3
Category: Children’s concepts of reading and writing

<table>
<thead>
<tr>
<th>Concept</th>
<th>Number of children mentioning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>School 1 n=(10)</td>
</tr>
<tr>
<td>Thinking/using your brain</td>
<td>8</td>
</tr>
<tr>
<td>Reading/writing connection</td>
<td>8</td>
</tr>
<tr>
<td>Role of the teacher</td>
<td>8</td>
</tr>
<tr>
<td>Importance of being able to read/write</td>
<td>5</td>
</tr>
<tr>
<td>Developing a sight vocabulary</td>
<td>2</td>
</tr>
<tr>
<td>Automatic written representation</td>
<td>2</td>
</tr>
</tbody>
</table>

Total number of children mentioning in Schools 1+3+6 n=(30)
### Table 1 Percentage of female children across the six schools

<table>
<thead>
<tr>
<th>Class</th>
<th>(95) Control</th>
<th>(96) Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>47.0</td>
<td>39.6</td>
</tr>
<tr>
<td>2</td>
<td>45.3</td>
<td>44.1</td>
</tr>
<tr>
<td>3</td>
<td>60.0</td>
<td>50.4</td>
</tr>
<tr>
<td>4</td>
<td>54.0</td>
<td>61.1</td>
</tr>
</tbody>
</table>

### Table 2 Children’s average ages in months across the six school

<table>
<thead>
<tr>
<th>Class</th>
<th>(95) Control</th>
<th>(96) Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>62.06</td>
<td>62.01</td>
</tr>
<tr>
<td>2</td>
<td>73.50</td>
<td>73.57</td>
</tr>
<tr>
<td>3</td>
<td>85.27</td>
<td>85.27</td>
</tr>
<tr>
<td>4</td>
<td>97.57</td>
<td>96.25</td>
</tr>
</tbody>
</table>

### Table 3 Percentage of children who attended nursery school prior to starting school

<table>
<thead>
<tr>
<th>(95) Control</th>
<th>(96) Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>92.59</td>
<td>90</td>
</tr>
</tbody>
</table>

### Table 4 Percentage of children with Free Meal Entitlement across the six schools

<table>
<thead>
<tr>
<th>Class</th>
<th>(95) Control</th>
<th>(96) Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>54.5</td>
<td>61.8</td>
</tr>
<tr>
<td>2</td>
<td>56.4</td>
<td>54.4</td>
</tr>
<tr>
<td>3</td>
<td>65.0</td>
<td>58.1</td>
</tr>
<tr>
<td>4</td>
<td>57.1</td>
<td>67.4</td>
</tr>
</tbody>
</table>
Table 5 Comparison of (95) Control and (96) Intervention Mean Alphabet Test Scores. Each of the six Schools in the Study

<table>
<thead>
<tr>
<th>School</th>
<th>Class</th>
<th>(95) Control</th>
<th></th>
<th>(96) Intervention</th>
<th></th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>n=0</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>1</td>
<td>P1</td>
<td>3.10</td>
<td>6.33</td>
<td>(20)</td>
<td>3.35</td>
<td>5.35</td>
</tr>
<tr>
<td></td>
<td>P2</td>
<td>13.65</td>
<td>7.35</td>
<td>(20)</td>
<td>22.70</td>
<td>4.85</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>21.41</td>
<td>7.03</td>
<td>(17)</td>
<td>24.63</td>
<td>2.63</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>25.71</td>
<td>0.72</td>
<td>(21)</td>
<td>26.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td>P1</td>
<td>3.32</td>
<td>6.57</td>
<td>(27)</td>
<td>3.23</td>
<td>4.22</td>
</tr>
<tr>
<td></td>
<td>P2</td>
<td>17.50</td>
<td>6.69</td>
<td>(23)</td>
<td>15.81</td>
<td>7.14</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>21.05</td>
<td>5.73</td>
<td>(20)</td>
<td>24.42</td>
<td>2.36</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>25</td>
<td>1.45</td>
<td>(20)</td>
<td>25.29</td>
<td>1.23</td>
</tr>
<tr>
<td>3</td>
<td>P1</td>
<td>7.73</td>
<td>8.04</td>
<td>(22)</td>
<td>8.24</td>
<td>7.60</td>
</tr>
<tr>
<td></td>
<td>P2</td>
<td>19.74</td>
<td>6.12</td>
<td>(19)</td>
<td>24.65</td>
<td>2.25</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>25.60</td>
<td>1.26</td>
<td>(20)</td>
<td>25.25</td>
<td>1.74</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>25.95</td>
<td>0.21</td>
<td>(22)</td>
<td>26.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td>P1</td>
<td>2.80</td>
<td>5.08</td>
<td>(20)</td>
<td>4.16</td>
<td>5.83</td>
</tr>
<tr>
<td></td>
<td>P2</td>
<td>10.70</td>
<td>7.84</td>
<td>(20)</td>
<td>19.00</td>
<td>7.16</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>23.65</td>
<td>5.17</td>
<td>(20)</td>
<td>22.30</td>
<td>5.40</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>25.80</td>
<td>0.41</td>
<td>(20)</td>
<td>25.85</td>
<td>0.67</td>
</tr>
<tr>
<td>5</td>
<td>P1</td>
<td>5.27</td>
<td>8.55</td>
<td>(15)</td>
<td>7.11</td>
<td>6.72</td>
</tr>
<tr>
<td></td>
<td>P2</td>
<td>15.94</td>
<td>9.03</td>
<td>(16)</td>
<td>22.16</td>
<td>4.94</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>22</td>
<td>5.39</td>
<td>(12)</td>
<td>23.94</td>
<td>4.93</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>-</td>
<td>-</td>
<td></td>
<td>25.25</td>
<td>1.76</td>
</tr>
<tr>
<td>6</td>
<td>P1</td>
<td>10.05</td>
<td>9.27</td>
<td>(20)</td>
<td>14.57</td>
<td>6.90</td>
</tr>
<tr>
<td></td>
<td>P2</td>
<td>23.60</td>
<td>4.74</td>
<td>(20)</td>
<td>24.75</td>
<td>2.15</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>25.10</td>
<td>2.90</td>
<td>(20)</td>
<td>25.85</td>
<td>0.49</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>25.45</td>
<td>1.82</td>
<td>(20)</td>
<td>26</td>
<td>0.00</td>
</tr>
</tbody>
</table>
### Table 6 Group 1: The four schools with the highest Free Meal Entitlement in the Study

Comparison of (95) Control and (96) Intervention Mean Alphabet Test Scores

<table>
<thead>
<tr>
<th>Class</th>
<th>(95) Control</th>
<th>(96) Intervention</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>n=()</td>
</tr>
<tr>
<td>P2</td>
<td>14.45</td>
<td>7.97</td>
<td>(78)</td>
</tr>
<tr>
<td>P3</td>
<td>22.06</td>
<td>5.84</td>
<td>(69)</td>
</tr>
<tr>
<td>P4</td>
<td>25.49</td>
<td>1.03</td>
<td>(53)</td>
</tr>
</tbody>
</table>

### Table 7 Group 2: The two schools with lowest Free Meal Entitlement in the study

Comparison of (95) Control and (96) Intervention mean Alphabet Test Scores

<table>
<thead>
<tr>
<th>Class</th>
<th>(95) Control</th>
<th>(96) Intervention</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>n=()</td>
</tr>
<tr>
<td>P2</td>
<td>21.72</td>
<td>5.73</td>
<td>(90)</td>
</tr>
<tr>
<td>P3</td>
<td>25.27</td>
<td>2.46</td>
<td>(30)</td>
</tr>
<tr>
<td>P4</td>
<td>25.71</td>
<td>1.27</td>
<td>(22)</td>
</tr>
</tbody>
</table>
Table 8 Comparison of Control and Intervention Mean Burt Inglis Spelling Test (BI) Scores. Group 2: The two schools with lowest Free Meal Entitlement in the study

<table>
<thead>
<tr>
<th>Class</th>
<th>(95) Control Mean</th>
<th>SD n=()</th>
<th>(96) Intervention Mean</th>
<th>SD n=()</th>
<th>Comparison of (95) Control and (96) Intervention Mean Scores p value</th>
<th>(98) Intervention Mean</th>
<th>SD n=()</th>
<th>Comparison of (95) Control and (96) Intervention Mean Scores p value</th>
<th>Comparison of (96) Intervention and (98) Intervention Mean Scores p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2</td>
<td>12.10</td>
<td>7.92</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>P3</td>
<td>19.70</td>
<td>8.65</td>
<td>19.12</td>
<td>8.31</td>
<td>NS</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>P4</td>
<td>27.14</td>
<td>14.00</td>
<td>27.56</td>
<td>9.66</td>
<td>NS</td>
<td>29.04</td>
<td>11.65</td>
<td>NS</td>
<td>NS</td>
</tr>
</tbody>
</table>

n=0 (40) p value (40)
Cluster 2nd Review Day Early Intervention project 10 March 1997

Thank you for taking the time to fill in this questionnaire. I would like to assure you, that in any report, the name of the school will not be mentioned, and will only be referred to by a code number.

Questionnaire for Classteachers P1-3

Background details

1. School ____________________________

If you were not teaching in this project school in any of the years 1994-1997 please write N/A where appropriate.

Before the project started

2. Which class did you teach during session 1994-1995, the year before the project started? (eg P2,P3) __________

3. Approximately how many children were in that class? __________

4. During that year did you have the regular assistance of another adult in the class?  
   Yes  No

5. If you answered yes, please tick, and give an approximate indication of the amount of time per week, eg 1 hour, 3 hours, 1/2 day, 1 day.

please tick  time per week

nursery nurse
learning support teacher
parent
home link teacher
promoted member of staff
special needs auxiliary
other
The first year of the project

6. Which class did you teach during session 1995-1996, the first year of the project? (eg P2,P3)

7. Approximately how many children were in that class?

8. During that year did you have the regular assistance of another adult in the class?
   Yes   No

9. If you answered yes please tick, and give an approximate indication of the amount of time per week eg 1 hour, 3 hours, 1/2 day, 1 day.
   Please tick                  time per week
   nursery nurse
   learning support teacher
   parent
   home link teacher
   promoted member of staff
   other

The second year of the project

10. Which class are you teaching this session 1996-1997, the second year of the project? (eg P2,P3)

11. Approximately how many children are in that class?

12. This year did you have the regular assistance of another adult in the class?
   Yes   No

13. If you answered yes please tick, and give an approximate indication of the amount of time per week eg 1 hour, 3 hours, 1/2 day, 1 day.
   Please tick                  time per week
   nursery nurse
   learning support teacher
   parent
   home link teacher
   promoted member of staff
   special needs auxiliary
   other

14. During which of the 3 years did you have most extra assistance in the classroom?

15. Please list the 3 main benefits you have found having other adults working with you

- 
- 
- 

16. Please list the 3 main disadvantages you have found having other adults working with you

- 
- 
- 

Classroom practice since the project began in 1995

17. How did the time spent on the recommendations suggested during the in-service sessions, compare to the time spent before the start of the project?

<table>
<thead>
<tr>
<th>more than before</th>
<th>the same</th>
<th>less than before</th>
</tr>
</thead>
</table>
1. "hearing" children read
2. alphabet sounds
3. alphabet names
4. rhyming activities
5. work on analogies-word patterns
6. emergent-independent writing
7. scribing
8. copying-breakthrough type approach
9. simultaneous oral spelling
10. Fry common word list-sight words

18. Are any of the above activities 1-10 new to your classroom practice with children at this stage. If so please indicate by ticking the appropriate numbers

1 2 3 4 5 6 7 8 9 10
19. Are there any other ways in which you have changed your practice as a result of the recommendations given during the in-service sessions?

Yes  No

If yes can you describe briefly in what way

20. Have you changed the organisation of your day in any way as a result of your involvement in the project?

Yes  No

If you answered yes can you briefly describe in what way

21. When "hearing" children read do you most often hear them

in groups  individually

22. Are the main texts which you use to hear children read

part of a reading scheme

or

individual-real books

or

an equal balance between the two
23. Which of the recommendations do you think has been **most effective**?

24. Which of the recommendations do you think has been **least effective**?

25. Which of the **recommended resources**, which you have had access to have you found to be **most** successful? Please say **why** you think that they have been successful.

26. Which of the **recommended resources** which you have had access to have you found to be **least** successful? Please say **why** you think that they have **not** been successful.

27. Was the parental involvement during the project?

   - More than before
   - The same as before
   - Less than before
28. Please describe briefly any particularly successful strategies or initiatives which have promoted parental involvement during the project

29. Thinking of the classes you have taught over the last 2 years, what do you perceive the impact of the project has had on the children's progress in reading using a scale of 1-5, where 1 indicates no impact and 5 indicates a significant impact?

   1  2  3  4  5

30. Thinking of the classes you have taught over the last 2 years, what do you perceive the impact of the project has had on the children's progress in writing, using a scale of 1-5, where 1 indicates no impact and 5 indicates a significant impact?

   1  2  3  4  5

31. Thinking of the classes you have taught over the last 2 years, what do you perceive the impact of the project has had on the children's awareness of print using a scale of 1-5, where 1 indicates no impact and 5 indicates a significant impact?

   1  2  3  4  5

32. If you feel that there have been any unexpected outcomes during the project could you please describe them briefly
33. What further input on early literacy, if any, would you find helpful?

34. During the 2 years of the project have you changed your views in any way about how to teach reading at the early stages of school?

   Yes  No

   If you answered yes please list a few of the main points

35. During the 2 years of the project have you changed your views in any way about how to teach writing at the early stages of school?

   Yes  No

   If you answered yes please list a few of the main points

Thank you for completing this questionnaire and for all the support you have given to the Early Literacy Project.

Moira Leslie
March 1997
Appendix 12b

Cluster
2nd Review Day
Early Intervention project
10 March 1997

Thank you for taking the time to fill in this questionnaire. I would like to assure you, that in any report, the name of the school will not be mentioned, and will only be referred to by a code number.

Questionnaire for Learning Support Teachers
Background details

1. School

If you were not teaching in this project school in any of the years 1994-1997 please write N/A where appropriate.

Before the project started

2. During session 1994-1995, the year before the project started, can you indicate approximately how long you spent working with with each class, each week (eg half hour, 1 hour, 2 hours.)

<table>
<thead>
<tr>
<th>Time per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
</tr>
<tr>
<td>P2</td>
</tr>
<tr>
<td>P3</td>
</tr>
<tr>
<td>P4</td>
</tr>
<tr>
<td>P5</td>
</tr>
<tr>
<td>P6</td>
</tr>
<tr>
<td>P7</td>
</tr>
</tbody>
</table>

The first year of the project

3. During session 1995-1996, the first year of the project, can you indicate approximately how long you spent working with with each class, each week (eg half hour, 1 hour, 2 hours.)

<table>
<thead>
<tr>
<th>Time per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
</tr>
<tr>
<td>P2</td>
</tr>
<tr>
<td>P3</td>
</tr>
<tr>
<td>P4</td>
</tr>
<tr>
<td>P5</td>
</tr>
<tr>
<td>P6</td>
</tr>
<tr>
<td>P7</td>
</tr>
</tbody>
</table>
The second year of the project

4. This session 1996-1997, can you indicate **approximately** how long you spend working with each class, each week (eg half hour, 1 hour, 2 hours)

   Please tick

<table>
<thead>
<tr>
<th></th>
<th>time per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td></td>
</tr>
<tr>
<td>P2</td>
<td></td>
</tr>
<tr>
<td>P3</td>
<td></td>
</tr>
<tr>
<td>P4</td>
<td></td>
</tr>
<tr>
<td>P5</td>
<td></td>
</tr>
<tr>
<td>P6</td>
<td></td>
</tr>
<tr>
<td>P7</td>
<td></td>
</tr>
</tbody>
</table>

5. In general, since the project began, have you spent more time working with the early years classes than in previous years?

   Yes    No

If you answered Yes, please describe briefly how you feel about this use of your time.


6. The in-service sessions were aimed at the early years of the school. Do you feel that it was worthwhile for all members of staff to attend?

   Yes    No

If you answered Yes please list a few main points


7. **Primary 1-3**

How did the time, spent on the recommendations suggested during the In-service sessions, compare with the time you spent on these activities before the start of the project?

<table>
<thead>
<tr>
<th>Activity</th>
<th>more than before</th>
<th>the same</th>
<th>less than before</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. &quot;hearing&quot; children read</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. alphabet sounds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. alphabet names</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. rhyming activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. work on analogies- word patterns</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. emergent -independent writing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. scribing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. copying - breakthrough type approach</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. simultaneous oral spelling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Fry common word list-sight words</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Are any of the above activities 1-10 **new** to your classroom practice with children at the P1-3 stage. If so please indicate by ticking the appropriate numbers

1 2 3 4 5 6 7 8 9 10

9. Which of the recommendations do you think has been **most effective** with children at the P1-3 stage?
10. **Primary 4-7**  
How did the time, spent on the recommendations suggested during the in-service sessions, compare with the time you spent on these activities before the start of the project?

<table>
<thead>
<tr>
<th>Item</th>
<th>more than before</th>
<th>the same</th>
<th>less than before</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. “hearing” children read</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. alphabet sounds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. alphabet names</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. rhyming activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. work on analogies - word patterns</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. emergent - independent writing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. scribing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. copying - breakthrough type approach</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. simultaneous oral spelling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Fry common word list-sight words</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. Are any of the above activities 1-10 new to your classroom practice with children at the P 4-7 stage.  
If so please indicate by ticking the appropriate numbers

1  2  3  4  5  6  7  8  9  10

12. Which of the recommendations do you think has been most effective with children at the P 4-7 stage?
13. Are there any ways in which you have changed your practice as a result of the project recommendations

[ ] Yes  [ ] No

If Yes can you describe briefly in what way

14. Which of the recommended resources, which you have had access to have you found to be most successful?
Please say why you think that they have been successful.

15. Which of the recommended resources which you have had access to have you found to be least successful?
Please say why you think that they have not been successful.
16. Thinking of the children you have taught over the last 2 years, what do you perceive the impact of the project has had on the children's progress in reading, using a scale of 1-5, where 1 indicates no impact and 5 indicates a significant impact?

1 2 3 4 5

17. Thinking of the children you have taught over the last 2 years, what do you perceive the impact of the project has had on the children's progress in writing, using a scale of 1-5, where 1 indicates no impact and 5 indicates a significant impact?

1 2 3 4 5

18. Thinking of the classes you have taught over the last 2 years, what do you perceive the impact of the project has had on the children's awareness of print, using a scale of 1-5, where 1 indicates no impact and 5 indicates a significant impact?

1 2 3 4 5

19. Was the parental involvement during the project?

More than before  The same as before  Less than before

20. Please describe briefly any particularly successful strategies or initiatives which have promoted parental involvement during the project.
21. If you feel that there have been any unexpected outcomes during the project could you please describe them briefly.

22. What further input on early literacy, if any, would you find helpful?

Thank you for completing this questionnaire and for all the support you have given to the Early Literacy Project.

Moira Leslie
March 1997
Thank you for taking the time to fill in this questionnaire. I would like to assure you that in any report, the name of the school will not be mentioned, and will only be referred to by a code number.

**Questionnaire for Class teachers P4-7**

**Background details**

1. **School**

   If you were not teaching in this project school in any of the years 1994-1997 please write N/A where appropriate.

**Before the project started**

2. Which class did you teach during session 1994-1995, the year **before** the project started? (eg P5, P6)

3. Approximately how many children were in that class?

4. During that year did you have the regular assistance of another adult in the class?  
   - Yes  
   - No

5. If you answered Yes, please tick, and give an approximate indication of the amount of time per week, eg 1 hour, 3 hours, 1/2 day, 1 day.

   - learning support teacher
   - parent
   - home link teacher
   - promoted member of staff
   - special needs auxiliary
   - other
The first year of the project
6. Which class did you teach during session 1995-1996, the first year of the project? (eg P5, P6) 

7. Approximately how many children were in that class? 

8. During that year did you have the regular assistance of another adult in the class? 
   Yes [ ] No [ ] 

9. If you answered yes please tick, and give an approximate indication of the amount of time per week eg 1 hour, 3 hours, 1/2 day, 1 day. 
   Please tick 

<table>
<thead>
<tr>
<th>Learning support teacher</th>
<th>Time per week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent</td>
<td></td>
</tr>
<tr>
<td>Home link teacher</td>
<td></td>
</tr>
<tr>
<td>Promoted member of staff</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

The second year of the project
10. Which class are you teaching this session 1996-1997, the second year of the project? (eg P6, P7) 

11. Approximately how many children are in that class? 

12. This year did you have the regular assistance of another adult in the class? 
   Yes [ ] No [ ] 

13. If you answered Yes please tick, and give an approximate indication of the amount of time per week eg 1 hour, 3 hours, 1/2 day, 1 day. 
   Please tick 

<table>
<thead>
<tr>
<th>Learning support teacher</th>
<th>Time per week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent</td>
<td></td>
</tr>
<tr>
<td>Home link teacher</td>
<td></td>
</tr>
<tr>
<td>Promoted member of staff</td>
<td></td>
</tr>
<tr>
<td>Special needs auxiliary</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>
14. During which of the 3 years did you have most extra assistance in the classroom?

- 1994-1995
- 1995-1996
- 1996-1997

15. How much Learning Support time have you had since the project began?

- More
- The same
- Less

16. Do you think that more learning support time has been given to the early stages?

- Yes
- No

17. If you answered yes please describe briefly how you feel about this

Classroom practice since the project began in 1995

18. The in-service sessions were aimed at the early years of the school. Do you feel that it was worthwhile for all members of staff to attend?

- Yes
- No

19. If you answered yes please list a few main points
20. Which of the recommendations suggested during the in-service sessions have you used with the children at the p 4-7 stage

<table>
<thead>
<tr>
<th></th>
<th>often</th>
<th>sometimes</th>
<th>never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&quot;hearing&quot; children read</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>alphabet sounds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>alphabet names</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>rhyming activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>work on analogies- word patterns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>emergent - independent writing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>scribing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>copying - breakthrough type approach</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>simultaneous oral spelling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Fry common word list-sight words</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

21. Are any of the above activities 1-10 new to your classroom practice with children at this stage. If so please indicate by ticking the appropriate numbers

1 2 3 4 5 6 7 8 9 10

22. Are there any other ways in which you have changed your practice as a result of the recommendations given during the in-service sessions?

Yes  No

if Yes can you describe briefly in what way
23. When “hearing” children read do you most often hear them
   in groups  individually

24. Are the main texts which you use to hear children read
   part of a reading scheme  
   or
   individual-real books  
   or
   an equal balance between the two

25. Which of the recommendations do you think has been most effective with children at the P4-7 stage?

26. Which of the recommendations do you think has been least effective with children at the P4-7 stage?

27. Was the parental involvement during the project?
   More than before  The same as before  Less than before
28. Please describe briefly any particularly successful strategies or initiatives which have promoted parental involvement during the project.

29. Thinking of the classes you have taught over the last 2 years, what do you perceive the impact of the project has had on the children's progress in **reading** using a scale of 1-5, where 1 indicates no impact and 5 indicates a significant impact?

   1  2  3  4  5

30. Thinking of the classes you have taught over the last 2 years, what do you perceive the impact of the project has had on the children's progress in **writing**, using a scale of 1-5, where 1 indicates no impact and 5 indicates a significant impact?

   1  2  3  4  5

31. If you feel that there have been any unexpected outcomes during the project could you please describe them briefly.
32. What further input on early literacy, if any, would you find helpful?

33. During the 2 years of the project have you changed your views in any way about how to teach reading?

Yes  No

If you answered Yes please list a few of the main points

34. During the 2 years of the project have you changed your views in any way about how to teach writing?

Yes  No

If you answered Yes please list a few of the main points

Thank you for completing this questionnaire and for all the support you have given to the Early Literacy Project.

Moira Leslie
March 1997
APPENDIX 13

Questionnaire Pilot

There is a consensus amongst researchers about the importance of piloting questionnaires (Oppenheim, 1992; Cohen, et al., 2000). Large-scale piloting of the questionnaires used in this study was carried out in a primary school in the Local Authority. The researcher had been contracted to undertake an intervention project in this primary school, at the same time as the main PhD study was being undertaken in a cluster of schools in another area of the City, and therefore this primary school provided a similar population in which to trial the questionnaires. The aim being 'to simulate the real thing as closely as possible' (Munn and Drever, 1996).

Over the course of a year the pilot school was involved in a small-scale early intervention project. All eighteen teachers in this large primary school took part in a programme of staff development which was very similar to that undertaken by the teachers in the main study. The same personnel involved in the main study led the staff development sessions in the pilot study. The teachers in the pilot school had been issued with the same recommended resources for use in the classroom and were following the same recommendations for literacy teaching as the cluster of schools in the PhD study. The same process of evaluation, which involved the use of standardised tests, had been adopted for measuring the impact of the intervention on children's literacy attainment.

The conditions for completing and administering the questionnaire during piloting were intended to be the same as in the research study: respondents completing the questionnaire in school time as part of a project review session. The data arising from these questionnaires was thoroughly analysed as part of the contract evaluation for the pilot school.

Discussions were held with the respondents concerning the completion of the pilot questionnaires. Comments about the clarity of the layout and instructions were sought. Respondents were also encouraged to discuss any difficulties they had encountered in filling in the questionnaires, and any inconsistencies in their interpretations of the questions asked. Ambiguities or difficulties in wording were noted (Bechhhofer and Paterson, 2001). Feedback
was gained about the validity of the questionnaire items in terms of participants’ understanding of the purposes of the research (Cohen, et al., 2000).

Additional small-scale piloting was carried out. This involved teachers working in primary schools that had no involvement in early intervention initiatives, as well as colleagues with an interest in the area of early literacy development and the management of change. Their comments were sought concerning their interpretations of the questions asked in the questionnaires, and, as a result of this consultation and that of the main pilot study some modifications were made to the wording and some alterations to the order of certain questions.

The questionnaires in the pilot study were designed to gather data at the end of a one-year intervention project, whereas the questionnaires in the PhD study were aimed at gathering data during the second year of intervention. It followed, therefore, that some of the questions asked in the PhD study were necessarily different. For example, in the main research study there were a few questions that asked for information over three years (one year pre-intervention and two years post-intervention). This was obviously not possible during piloting, however, the wording and format for these particular questions were kept as similar as possible in the pilot and in the main study.
Early intervention in the prevention of reading difficulties

Moira Leslie and Gregor McMillan
Heriot-Watt University and Edinburgh City Psychological Service

Abstract
Since 1993 psychologists, lecturers, teachers and advisory staff in Edinburgh have been involved in researching, developing and implementing early intervention projects aimed at improving reading standards, particularly in areas of deprivation. This work has been widely publicised in Scotland and many other local authorities have initiated similar schemes. This paper will outline the basic rationale for the early intervention projects, report briefly on the ongoing evaluations and compare the effects of different funding and implementation strategies.

Background
Garner (1989), in a study of the effects of deprivation in Lothian, found that family background, neighbourhood characteristics and school characteristics all affected educational attainments. The neighbourhood effect, irrespective of school attended or family background, was enough to raise or depress attainments substantially. While poverty per se is not the most important determinant of the literacy preparation a child receives at home, some children live in communities where reading and writing are not highly valued activities. Rabin (1991) stated that early identification is crucial because it has been pointed out that the gap between the poor reader and the skilled reader usually widens as the pupil moves through school, in spite of programmes of remediation. Stanovich (1986) found that slow reading acquisition slows the development of other skills and affects performance on many academic tasks. He suggested that, over time, deficits become more generalised and affect more areas of cognition and behaviour.

In order to identify and remediate early literacy difficulties it is helpful to look at the characteristics of children which predict reading failure. Adams (1990) suggests that the best predictor of reading success is the pre-schoolers' knowledge of letter names, followed by phonological knowledge and general cognitive ability. Bryant and Bradley (1985) have shown that not only does knowledge of phonology, particularly rhyme and alliteration, predict subsequent reading success in pre-schoolers, independently of intelligence, but training in such skills leads to significant improvement in reading in the early years of schooling. Byrant and Bradley's work has since been extended by Usha Goswami, who has contributed to the production of excellent commercial materials (Goswami, 1996). While Bryant and Bradley have shown that phonological awareness is a pre-requisite of learning to read, Ehri (1979) suggests that reading itself develops such awareness. There is, therefore, reciprocal causation. Furthermore, children who are having difficulty with reading will read less than their peers, resulting in what is described as a 'Matthew effect' (Stanovich, 1986) whereby the rich get richer as the poor get poorer.
Dame Marie Clay has devoted many years to the development of an early intervention programme aimed at pupils with reading difficulties. Typically the Clay Reading Recovery programme (Clay, 1985) involves identifying the four or five poorest readers in second year primary classes. It is a preventative programme aimed at bringing children up to average levels of attainment in a timescale of 12 to 20 weeks. The pupils work for half an hour per day on an individual basis with a specially trained teacher, from a menu of tasks which usually includes reading two or three familiar books and a new book. Following criticism and research by Iverson and Tunmer (1992), Clay has incorporated phonological training into Reading Recovery, which appears to greatly increase the efficacy of the programme.

Parental involvement has been shown to be crucial in both the development of pre-school literacy skills and the reading skills of school-age children. There have been many attempts to extend parental involvement and Paired Reading has been one of the most popular and successful approaches. Topping (1991) makes the point that with the increased pressures of curriculum change, assessment and record keeping, there is concern that teachers are less able than in the past to 'hear children read' and that attempts to timetable class reading are supervised by 'harassed classteachers' who have difficulty in monitoring, correcting and providing feedback to pupils. Topping and Lindsay (1992) have summarised a large body of research which shows impressive gains among pupils who have taken part in Paired Reading projects. McMillan, Johnson, Young and Noble (1988) showed similarly impressive gains in reading attainment in pupils living in areas of high social deprivation. However, it was very difficult to recruit parents and take-up rates generally tended to be low, ranging from nil to 35 per cent.

There appear to be some simple factors in terms of classroom activity which are clearly related to literacy progress. Stallings (1976) found that the amount of time spent on reading activities was important. Clay (1979) has emphasised that, for school-age children, the most powerful predictor of reading progress is time actually engaged in reading. The importance of this simple and often replicated finding cannot be over-emphasised. Pupils who spend more time on supervised reading make more progress. Emergent and early writing encourages young children to develop alphabetic skills which can be transferred to reading (e.g. Snowling, 1985). Bond and Dykstra (1967) looked at hundreds of classrooms in the USA in an attempt to identify the most effective approaches to early reading teaching. They found that whatever method was used, there were some pupils who learned to read well and others who had difficulty. However, the most effective teachers were those who included a strong element of systematic phonic instruction in their approach.

The Edinburgh Studies

Five schools took part in this project. Four were in areas of relative socio-economic disadvantage and were situated in what Edinburgh District Council (1987:9) described as 'in terms of multiple deprivation, the worst hit areas. On indicators of unemployment, long-term unemployment, large families, single parent families, free school meals, housing benefit and housing conditions these areas come off worst.' The fifth school was in an area of relative advantage and was used as a comparator. Between November 1992 and February 1993, 112 Primary 4 pupils' literacy attainments were assessed in detail; 24 pupils were further assessed on measures of receptive vocabulary and phonological knowledge; nearly 40 hours were spent observing in Primary 2 classrooms; the methods and theories
adopted by infant teachers in the four target schools were investigated; the headteachers in these schools were interviewed in relation to their philosophies and policies on the teaching of reading; and several teachers' workshops were conducted. The detailed results and statistical analysis are reported by McMillan, Fox and Wood (1994).

Essentially the results reveal massive differences in attainment between children in schools in areas of deprivation and children in more advantaged areas. Children living in the deprived areas were usually (circa 80 per cent) over a year delayed in terms of reading age and often (circa 50 per cent) over two years delayed. Spelling, writing and punctuation were similarly weak. Assessment of a sample of P4 pupils indicated that there was only a small correlation between vocabulary (and implicitly verbal intelligence) and reading skills, but a high correlation between phonological skills and reading ability.

A number of P2 classes in four schools were observed and findings on the amount of time pupils spent on literacy related activities were calculated. The amount of time spent on direct reading varied widely from class to class but pupils in general spent little time actually reading books. The survey of P1-3 teachers in the four schools involved in the study showed that teachers generally agreed on the importance of systematic phonic teaching and frequent practice in reading meaningful text. Teachers felt that behavioural problems, lack of concentration, poor knowledge of books and words and lack of facility with language were significant contributory factors in the reading problems of their pupils. Headteachers remarked on the low level of parental support for pupils. They suggested that P1-3 pupils needed to spend more time reading but this could only be achieved with additional staffing.

The Pilton Early Intervention Reading Project

The local education authority made funds available for the appointment of two home-link teachers, 1.6 full-time equivalent learning support teachers and six nursery nurses to be appointed to the four project primaries. In addition, an educational psychologist was seconded to the project for two days a week and a small budget was made available for the purchase of materials. In June 1994 additional baseline data on pupils in the project schools was gathered to enable a quantitative evaluation to take place.

Rationale

The aim of the project was to provide an integrated and coherent programme of early intervention for children in the target schools' catchment areas, from the pre-school stage through to the end of P3. Current research indicates that early intervention programmes are more effective than remedial work at a later stage. It has been shown that parental support and involvement is a major factor in children's reading success. Children who read regularly, not surprisingly, make more progress than those who do not. Finally children who come to school with a knowledge of letters and phonology tend to be most successful in acquiring reading skills.

The content of the project

Home-link teachers. The home-link teachers had a remit to support parents in their role as educators of their own children. They provided workshops for parents related to early literacy at the pre-school and early years stage, developed resources for parents to stimulate literacy and provided opportunities for children and parents to work together. They also
encouraged parents to participate in the work of the nursery and the early years classrooms. Home-link teachers visited parents and children at home to explain and support reading strategies.

*Nursery.* The project aimed to improve nursery pupils' knowledge about books, letters, rhyme and phonology. Nursery staff attended a half-day training course and were provided with a package of theoretical background articles and practical suggestions. In addition, some staff visited a nursery where an established programme of rhyme and phonological training had been established. Each nursery was provided with a package of resources which included big books of nursery rhymes, poetry and the alphabet as well as and other materials.

*Early years classes.* The most fundamental aim of the project was to increase the amount of time the children spent reading. To this end, classroom assistants were deployed in all early years classes to assist classroom teachers in literacy instruction, either by working directly with groups of children or individual children, or by supervising groups of children to free the class teacher to work with small groups.

All P1-3 staff attended two half-day training courses and were provided with a package of theoretical background articles, practical suggestions and specific instructions for phonological training and teaching by analogy. In addition a range of materials including sound picture cards, plastic letters and boards, phonic worksheets and alphabet and rhyming books were provided for classroom use. (Further details of the curricular recommendations given to class teachers may be found in McMillan & Leslie, 1997.)

*Learning support.* The learning support teachers initiated a programme based on Marie Clay's Reading Recovery (Clay, 1985) and Lynette Bradley's phonological approach (Bradley & Bryant, 1985). This involved class, learning support and head teachers selecting three or four pupils at the P2 stage who were felt likely to benefit from short-term, daily individual tuition. Each child received such tuition for 12 to 15 weeks. This programme was not a substitute for learning support in the early years but was intended as a separate and additional provision. Learning support teachers were supplied with appropriate training manuals and a small stock of suitable books.

*Evaluation*  
The detailed results of the 1994-95 evaluation were published by Lothian Region (McMillan, 1995). It was shown that, compared to baseline figures gathered before the start of the project, there had been significant improvements in literacy skills at each level from nursery to P3. Pupils had improved in knowledge of rhyme, knowledge of letters, concepts of print, ability to read common words and in formal tests of reading and spelling.

The 1995-96 evaluation showed continuing improvements. There were indications that pupils who benefited from additional literacy input at the nursery stage made particularly good progress on a school entry.

**Craigmillar Project**  
In May 1995, a group of schools in an another area of socio-economic disadvantage became
interested in developing an early literacy project. Working together as a cluster group of
one secondary, six primary and four nursery schools, they identified; as the focus for their
cluster development plan, the need to implement early intervention strategies to prevent
literacy failure.

As a result of this, the headteachers of these schools invited two of the workers who had
been most heavily involved in the Pilton project to act as consultants in the setting up of
this new project and to lead the staff development sessions which were based on the original
recommendations to the Pilton staff.

Certain elements of this new project were different. Firstly, the initiative to set up the project
came from the schools, unlike in the Pilton project where the decision was made by the
education authority. The headteachers set up their own steering group and all decisions for
the planning and implementation were taken by this group.

Secondly, unlike the original project, no start-up funding was made available, but as a
result of the greater control which devolved school management has given headteachers,
they were able to use their allocated school budget to finance the staff development
contract, purchase some new resources and, in a few instances, employ new staff to work
at the early years stages.

All of the schools increased the allocation of learning support time to the younger children
and some redeployed existing staff to work specifically on literacy activities at the early
stages of the school. However, the level of resourcing did not compare with the Pilton
project and it may be inferred that any gains in attainment were likely to be due, to a large
extent, to the implementation of the curricular and organisational advice.

A number of lessons had been learned during the planning, implementation and evaluation
of the Pilton project which informed the management and delivery of the Craigmillar project
(Leslie & Fraser, 1996). Headteachers were given very clear guidance as the commitments
required and effectively agreed to follow specific guidelines prior to the start of the project.

The in-service programme was developed and a greater emphasis was placed on emergent
writing, independent writing and early attempts at spelling. From the beginning of the
project all school staff, including the management team and upper school teachers, were
involved in the staff development sessions, rather than only the early years and learning
support staff. A handbook which expanded on the staff development sessions was distribu-
ted to all staff.

A detailed evaluation of the Craigmillar project will be reported elsewhere (Leslie; in prepa-
ration) and will include detailed statistical results and interviews with teachers and chil-
dren. However, it is clear that some teachers did change their practice as a result of the
recommendations given during the staff development sessions and the consensus amongst
primary school staff was that there had been a significant shift in the curriculum balance
towards literacy and that time on task had markedly increased.

Teachers have described timetabling literacy blocks when all the children work on activi-
ties specifically related to the recommendations from the staff development sessions. They
spoke of children concentrating for longer periods of time on literacy activities and of a more structured approach to their teaching. Some nursery teachers commented on a more focused approach to the development of these literacy activities.

Interviews with children have provided fascinating evidence that some of the pupils have an ability to discuss the strategies they are using, understand why they are being taught certain skills and acknowledge the importance of factors such as time on task, learning the alphabet and high frequency words. Leslie’s research will show clear links between the staff development programme, teachers’ practice and children’s perceptions about the reading task. Very large-scale testing also indicated significant gains in literacy attainments. These were of a somewhat lower order than the Pilton project, largely because improvements were rather less consistent from class to class. However, the work in this area does demonstrate that it is possible to significantly improve early literacy skills through curricular and organisational adjustments without a large injection of additional funds.

The Wester Hailes Project

Supported by the local community the primary schools in a further area of socio-economic deprivation initiated a large-scale early intervention literacy project for the 1996-97 session. While the pattern of resourcing and the focus of intervention varied from school to school, some key aspects of the approaches piloted in the Pilton project were adopted. These included:

♦ improving staffing in early years classes through the deployment of nursery nurses or classroom assistants;
♦ providing some new resources to early years teachers;
♦ involving nursery staff in activities to promote literacy development;
♦ increasing learning support time for early years pupils;
♦ emphasising regular reading practice, alphabetic knowledge, training in sound awareness and the teaching of high frequency words;
♦ giving reading, writing and the enjoyment of literature a high profile in terms of time allocations; and
♦ staff development.

The Evaluation

School staff made extensive assessments of pupils early in the session and reassessed progress in March 1997. This is obviously a short period in which to demonstrate any positive improvements in attainments. Detailed results are reported in McMillan (1997) and the figures indicate that the average performance of pupils who had taken part in the project was significantly better than pupils from the previous session who had not benefited from the programme.

There is clear evidence that the early literacy initiative in Wester Hailes primary schools had a significant impact. Pupils improved their skills in specific targeted areas such as alphabetic knowledge and knowledge of common words, as well as in overall reading skills. It is a tribute to the enthusiasm and skills of school staff that measurable improvements were effected in such a short time. The improvements are apparent in each school and some particular classes made outstanding progress. The schools have also gathered useful data with which to measure future progress and to track the progress of individual pupils.
Discussion

While not discussed previously, it should, however, be noted that improvements in attainment were not uniform from class to class. There was clear evidence in all three projects that the role of the class teacher remains fundamental. Pupils in some classes made much better progress than in others and these differences were attributable to teacher effectiveness. At the end of the day effective teaching is the bedrock of academic attainment.

While individual elements of the Edinburgh early intervention programme have been tested and shown to be successful elsewhere, the combination of the various elements into a comprehensive intervention package may be unique. It appears that while curricular and organisational advice alone can lead to a degree of improvement in literacy skills, greater improvements can be effected when this advice is supported with additional staffing. Clearly an emphasis at the pre-school stage in terms of book experience, concepts of print, phonological knowledge and alphabetic knowledge, and an early years approach emphasising prioritising reading in the curriculum, phonological knowledge, alphabetic knowledge, phonic skills and regular reading practice, is beneficial. Fostering emergent writing and independent story writing at an early stage is an integral part of an effective programme. An important part of the projects has been a high level of evaluation, both in terms of assessing gains in pupil reading skills and improving the structure of the projects themselves.

The Edinburgh initiatives have demonstrated that it is possible to integrate theoretical developments in the understanding of literacy acquisition and practical support to schools, in order to significantly improve levels of attainment, even in very disadvantaged communities.

References


Appendix 14

Leslie, M. Early Literacy (in preparation).


