THE 2004 NATIONAL ASSESSMENT OF ENGLISH READING

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Preface

National assessments of English reading have been conducted in primary schools in Ireland since 1972. The 2004 survey is the sixth in the series, and the first since the implementation of the revised Primary Schools English Curriculum in schools. As in previous surveys since 1980, the reading achievements of a representative national sample of pupils in Fifth class were assessed, and performance in 2004 is compared with performance in earlier assessments. In addition, for the first time, the performance of a representative sample of pupils in First class was assessed.

The aims of the 2004 National Assessment of English Reading (NAER 2004) were:

- to describe current reading standards of First and Fifth class pupils;
- to compare outcomes at Fifth class level with the outcomes of NAER 1998;
- to provide high quality, reliable data for the Department of Education and Science (DES) to assist in policy review and formulation, and resource allocation related to English reading;
- to describe relationships between reading standards and school, teacher, home background, and pupil factors;
- to provide a basis with which to compare future assessments of English reading.

The tests and other instruments used in NAER 2004 are broadly similar to those used in earlier assessments. However, two of the five booklets used to assess reading at Fifth class have been replaced – though without compromising comparability. Second, a new test of English reading for pupils in First class has been developed. Third, the questionnaires used in earlier assessments have been modified, while questionnaires for class teachers, learning-support teachers, and inspectors have been added.

NAER 2004 was carried out in May 2004 in conjunction with the 2004 National Assessment of Mathematics Achievement in Fourth class.

Chapter 1 of this report summarises the outcomes of earlier assessments, and reviews some of the factors that previous research has found to be associated with reading achievement. Chapter 2 describes the survey framework and the instruments used in the assessment. Chapter 3 details the survey procedures, including sample design, calculation of weights, and scaling of test data. It also describes how to interpret analyses and explains how the e-appendix (http://www.erc.ie/naer04/e-appendix) relates to content in the report. Chapter 4 describes the achievements of pupils in the 2004 assessment. It also compares teachers' estimates of achievement in reading and related areas with pupils' test scores, as well as the achievements of Fifth class pupils in the present study with those of Fifth class pupils assessed in 1998.

Chapter 5 relates pupil achievement to demographic characteristics of pupils, their educational experiences, engagement with learning, attitudes, aspirations, and expectations. Chapter 6 examines relationships between achievement and a variety of home background factors, including family structure and size, socioeconomic status, and home atmosphere. Aspects of the classroom environment are outlined in Chapter 7, including teacher characteristics, classroom composition, parent-teacher interaction, and practices related to the teaching of English and to pupil assessment. The relationships between some classroom environment variables and pupil achievement are also examined. Chapter 8 describes

school characteristics, including enrolment characteristics, parent-school interaction, school policy and planning issues, learning resources and staffing, and relationships between selected characteristics and achievement.

The focus of Chapter 9 is on learning support in schools. The qualifications of learning-support teachers, their experience and participation in in-career development, and their work are described. Chapter 10 summarises the views of Department of Education and Science inspectors about the teaching of English, including effective teaching strategies, differentiation, grouping practices and provision of learning support. Views on teachers' use of resources and on teacher knowledge are also described.

In Chapter 11, comparisons are made between the findings of the current assessment and of those of the 1998 assessment. School- and pupil-level variables and the relationship between selected variables and achievement are compared. In the final chapter (Chapter 12), the main findings and recommendations for policy and practice are presented.

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Éamonn Murtagh	Department of Education and Science
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Mary Killeen	National Parents' Council – Primary
Niamh Ní Mhaoláin / Nora Ní Loingsigh	Gaelscoileanna
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Executive Summary

The 2004 National Assessment of English Reading (NAER) in Irish primary schools is the most recent in a series of national assessments conducted at regular intervals since 1972. It examined the achievement of samples of pupils in First and Fifth class. Data on Fifth class pupils are available from assessments dating back to 1980, while data on First class pupils were collected for the first time in 2004. As the current assessment of Fifth class pupils used a test instrument similar to that used in 1993 and 1998, comparisons at this grade level are possible for 1993, 1998 and 2004 data.

At each grade level, close to 4000 pupils completed tests of reading achievement, while contextual data were obtained in questionnaires completed by pupils, parents, class and learning-support teachers, principals, and members of the Inspectorate. Response rates were high. Given this, and the sampling methods used, we can generalize from the results of the assessment to the equivalent populations nationally.

The results of the assessment indicate that the mean scores obtained by Fifth class pupils in the 1998 and 2004 assessments are almost identical. Further, scores on the three domains (narrative, expository, and documents) vary little across the two assessments, indicating that no change in 'national reading standards' has occurred since 1998. Indeed, based on linkages between this and earlier assessments, it can be inferred that overall standards have not changed since 1980. However, there has been an improvement on the documents subscale in the performance of high-achieving pupils, but not enough to lift overall achievement.

There are some achievement differences of note, both within the 2004 sample, and between the 2004 and 1998 samples. As in 1998, girls achieved a significantly higher mean score than boys on the overall scale at Fifth class (there is a similar gender difference at First class, but no comparable data for 1998). However, in 1998, girls also outperformed boys on each of the three domains, whereas in 2004, this was so only on the narrative and documents domains. Such gender differences are not unexpected, and are not unique to Ireland [see, for example, the results of Progress in International Reading Literacy Study (PIRLS), which found that girls had higher achievement than boys in each of the 35 participating countries (Mullis et al., 2003)].

There were a number of other expected findings in the present study. For example, lower pupil achievement was linked to a number of pupil background characteristics, including medical card coverage, low socioeconomic status (SES), unemployment, and low parental educational attainment. Other factors associated with poorer average scores include being a member of the Traveller community, speaking a first language other than English or Gaeilge, living in a lone-parent household, or being part of a large family. However, it was not simply family demographic and socioeconomic characteristics that were related to achievement: home 'process' variables such as parents reading to their child, parents reading for enjoyment, the availability of resources such as books in the home, and parental rules for leisure activities (such as TV viewing) are all associated with higher mean achievement scores. Some demographic changes are apparent between the 1998 and current assessments. For example, the percentage of Fifth class pupils without an employed parent dropped from 18% to 8%; there was a decrease of 6% in the percentage of pupils covered by the medical card; and the percentage living in lone-parent households increased by 5%. In contrast, there were no significant changes in home process variables such as parent-child interactions related to literacy or educational resources in the home.

A small number of classroom or teacher characteristics were found to be significantly associated with achievement. There is evidence that pupils benefit from having a teacher who is experienced, employed in a permanent capacity, who has attended in-career development (ICD) on the English curriculum, and who frequently assesses pupils. Generally, the relationship between teacher characteristics and achievement is stronger at First than at Fifth class. One of the strongest correlations is between the number of days ICD related to the English curriculum attended by teachers and First class pupil achievement in designated disadvantaged schools. Overall, less than 3% of teaching staff in schools were unqualified, but this percentage increased if only class teachers were considered, and increased again if only class teachers in designated disadvantaged schools were considered. In fact, 12% of First class pupils and 6% of Fifth class pupils in such schools were taught by an unqualified teacher.

Schools in the study represented a mix by location, language of instruction, designated status, size, and gender composition. All pupils (compared to 84% in 1998) were in schools in which computers were available for their use; the pupil-computer ratio was approximately 14:1, compared to 66:1 in 1998. Despite this, approximately one-third of pupils rarely or never used computers as part of English lessons. The overall (school-level) pupil-teacher ratio was 19:1, compared to almost 27:1 in 1998, and the number of learning-support posts had increased since 1998. The three factors most frequently selected by principals in 2004 as the main obstacles to teaching reading in their school were large classes, shortage of learning-support time, and inadequate psychological services. A number of school-level characteristics were significantly associated with pupil achievement, with a composite index of school-level SES showing by far the strongest relationship. Other school-level variables associated with higher achievement include good attendance rates, few pupils in receipt of learning support, and large pupil-teacher ratios. However, the last may in part be explained by the fact that designated disadvantaged schools tend to have smaller pupil-teacher ratios.

Learning-support teachers had an average caseload of 31 pupils, and just under half had completed a one-year part-time course in learning support. Most of their time was spent providing learning support in English, generally away from the pupils' classroom. Most believed that the Learning-Support Guidelines [Department of Education and Science (DES), 2000] were being implemented in their school, but only 73% agreed that learning support was meeting the needs of pupils in their school. Only slightly less than half felt that class teachers adequately differentiated their instruction for pupils in receipt of learning support. Related to this, approximately half of inspectors were dissatisfied with how teachers taught English to high ability pupils, and even more were dissatisfied with how English was taught to low ability pupils. Most inspectors were satisfied that teachers had adequate access to computers, software, texts, and library materials, but fewer were satisfied with how these resources were used. Greatest dissatisfaction was expressed with the use of computers and software for teaching English. More than half of the inspectors believed that teachers had a somewhat or very limited knowledge of methods of teaching English, while well over one-third believed that teachers had a limited understanding of the English curriculum.

Findings in the present survey are considered in conjunction with recent data on the implementation of the Primary School English Curriculum in schools (DES, 2005a; NCCA, 2005), and a number of recommendations designed to improve reading standards in schools are given. These concern differentiation in the teaching of reading, gender differences in reading, assessment of English, implementation of the English curriculum, the use of ICT in teaching and learning English, the co-ordination of classroom and learning support activities, the assignment of classes to teachers, the role of the home environment in

teaching English, the in-career development needs of teachers, and the needs of children who are at risk of reading difficulties, including children in designated disadvantaged schools.

Recommendations

1. Teachers (particularly those teaching in multigrade classrooms) should incorporate greater differentiation of teaching practices and materials into their classrooms. Such differentiation should address the needs of both low- and high-achieving pupils.
2. Teachers need to place greater emphasis on planning oral language, reading, and writing activities designed to enhance pupils' comprehension of text.
3. Teachers require additional support in teaching reading comprehension skills as they relate to different text genres, and in developing pupils' ability to respond to reading (including emotional and imaginative responses) through oral language and writing.
4. The over-use of published reading schemes and workbooks by many teachers should be replaced by the use of more authentic reading texts in a range of genres and by enhanced opportunities to engage in sustained writing in response to reading.
5. Teachers require ICD (and additional guidance at the school-level) on assessment, to enable them to use of a wider variety of techniques, including formative assessment, and to use assessment outcomes to inform their daily teaching practices.
6. All teachers should receive training in the application of ICT to English lessons, in matching programmes to pupils, and in providing support to pupils using such programmes.
7. Given a lack of integration between experiences in the classroom and in learning-support settings for a sizeable minority of pupils, school principals should work to provide opportunities for regular meetings between class and learning-support teachers, and to ensure that pupils' experiences in these settings are integrated.
8. All teachers should ensure that they are familiar with the Learning-Support Guidelines.
9. Classes of beginning readers should be given priority by school principals when assigning qualified and experienced teachers.
10. Most ICD should be implemented within schools on an ongoing basis. This would enable the particular needs and circumstances of each school to be addressed in a more coherent manner, as well as making ICD more accessible to teachers.
11. Parents of pre-school children should be targeted by information campaigns explaining the importance of providing educational resources in the home, of developing children's vocabulary, and of engaging in literacy-related interactions (e.g., regularly reading to their child).
12. All schools should make significant efforts to help parents in developing their children's language and literacy skills. To facilitate the adoption of effective strategies, the HSCL service should disseminate details of successful initiatives to all schools (including those not categorised as disadvantaged).
13. Efforts to improve reading achievement in schools in disadvantaged areas should acknowledge the sometimes negative effects of school context on the achievement of

individual pupils. To address the issue, interventions that attempt to bring about improvement at the level of individual pupils must be complemented by whole-school approaches that address the literacy needs of all pupils.

14. Children at risk of reading difficulties should receive a greater amount of reading instruction, preferably through a combination of increased English lesson time and participation in targeted after-school support programmes.
15. Children who are at risk of experiencing reading difficulties, including children for whom the language of instruction is not their first language and children from the Traveller community, should receive extensive additional support, irrespective of school context.
16. Class libraries should be composed of texts reflecting a variety of interests and should include a broad range of non-fiction texts.
17. Boys should be encouraged, by their parents in particular, to read texts covering a variety of genres and topics.
18. The appropriateness and value of testing First class pupils in national assessments (as distinct from teacher and diagnostic assessments) of English reading should be reconsidered.

List of Acronyms and Abbreviations

BIAP	Belfield Infant Assessment Profile
DES	Department of Education and Science
DPRT	Drumcondra Primary Reading Test
DSRT	Drumcondra Sentence Reading Test
ERC	Educational Research Centre
GRT	General Reading Test
HSCL	Home/School/Community Liaison
IALS	International Adult Literacy Survey
ICD	In-career development
ICT	Information and Communications Technology
IEA/RLS	International Association for the Evaluation of Educational Achievement / Reading Literacy Study
IRT	Item Response Theory
ISEI	International Socio-Economic Index
LANDS	Literacy and Numeracy in Disadvantaged Schools [Study]
LSG	Learning Support Guidelines
MICRA-T	Mary Immaculate College Reading Attainment Test
MIST	Middle Infant Screening Test
MOS	measure of [school] size
NAER	National Assessment of English Reading
NAMA	National Assessment of Mathematical Achievement
NCCA	National Council for Curriculum and Assessment
NCES	National Centre for Educational Statistics
OECD	Organisation for Economic Co-operation and Development
PCSP	Primary Curriculum Support Programme
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
PLC	Post-Leaving Certificate
PSEC	Primary School English Curriculum
SE	standard error
SS	scale score
SES	socioeconomic status
SLD	specific learning disability
SRS	simple random sample
TARA	Tasks for the Assessment of Reading Achievement

1. Introduction

Teachers, schools and national governments have long gathered information on pupils' performance. Teachers and schools use assessment data to monitor pupil progress, identify pupils with difficulties (and suggest appropriate responses), and even to motivate pupil learning. Although these types of assessment are quite varied in form and function, they are used primarily to provide information on individual performance. National governments may also assess educational outcomes (what has been learned) through examinations. National assessments, like the 2004 National Assessment of English Reading (NAER), which forms the basis of this report, allow the objective measurement of performance at system-level. Although there are many benefits to national-level data, some are of particular relevance. Greaney and Kellaghan (1996) identified eight main uses for such data: informing policy, monitoring standards, identifying correlates of achievement, introducing realistic standards, promoting accountability, increasing public awareness, directing teachers' efforts and raising pupil achievement, and informing political debate. These are reflected in the aims of NAER 2004:

- to establish current reading standards of First and Fifth class pupils;
- to compare outcomes at Fifth class level with the outcomes of NAER 1998;
- to provide high quality, reliable data for the Department of Education and Science (DES) to assist in policy review and formulation, and resource allocation related to English reading;
- to describe relationships between reading standards and school, teacher, home background, and pupil factors;
- to provide a basis with which to compare future assessments of English reading.

The remainder of this chapter is divided into five sections. The first and second sections, respectively, describe previous Irish national assessments of reading and international assessments of reading in which Ireland participated. In the third section, changes introduced in the 1999 Primary School English Curriculum (PSEC) and how these relate to NAER are described. In the fourth, comparisons are drawn between the methodologies of the current assessment and its predecessor – the 1998 National Assessment of English Reading. The fifth section summarises some previous research on factors associated with reading achievement.

Previous National Assessments of Reading

Ireland has a longer history of national assessments (of reading and other curriculum areas) than most countries. As summarized in Table 1.1, the first national assessment of the reading achievements of Irish primary school pupils was conducted in 1972, and a further four have been conducted since then. The Department of Education conducted the 1972 assessment, while all subsequent assessments have involved the Educational Research Centre (ERC) and the Department of Education (and Science). All the surveys collected contextual data (e.g., information about school characteristics and family background) as well as achievement data, thus allowing relationships between achievement and certain characteristics of individual pupils, or of their families or school environments, to be explored.

Table 1.1: Summary characteristics of previous Irish national assessments of reading

Year	Target group	N pupils	N schools	Instruments
1972	10-year-olds	4,500	300	NS6, Schonell (A), Kingston
1980	4th and 5th classes	2,000	100	NS6, Schonell (A)
1988	5th class	2,200	120	NS6, D88, ST88
1993	5th class + 11-year-olds	4,000	150	NS6, TARA, GRT
1998	5th class	4,000	150	TARA, GRT

The first four assessments used the NS6 (the National Survey Form 6), a test that had been used in national assessments in England between 1955 and 1979. Other tests used included the Schonell Test Form A, and the Kingston Test. The 1988 assessment saw the introduction of the D88 (adapted from Forms A and B of the Drumcondra English Test Level III) and the ST88 (based on material developed by the Assessment of Performance Unit of the Department of Education and Science in England and Wales).

By the 1993 assessment, test materials were quite similar to the materials used in the current survey. A new test – Tasks for the Assessment of Reading Achievement (TARA) – was used, as well as the NS6 and a linking test (based on the D88) called the General Reading Test (GRT). All pupils completed the GRT, thus providing a link for scaling purposes between the TARA booklets. The main advantage of the NS6 was that it facilitated comparison across assessments. Despite this, it was not used after the 1993 assessment because, having been developed in 1954, it had become dated. TARA was used again in 1998, replacing the NS6 as the link from one assessment to the next.

The surveys allow changes in national mean scores to be tracked. Thus, a significant improvement in average scores was observed between 1972 and 1980 (Kellaghan & Madaus, 1982), but average scores in 1988 were similar to those in 1980 (Department of Education, 1991), and neither the 1993 nor the 1998 assessments found any improvement in average levels of reading achievement. Similar surveys conducted at 5-year intervals between 1964 and 1979, but limited to pupils in the Dublin area, found no significant improvement in achievement between 1964 and 1969, but large improvements in the 1970s (McDonagh, 1973; Travers, 1976; Ward, 1982).

Depending on the measures used, national assessments can also allow comparison with reading achievement in other countries. For example, because the NS6 had been used in national assessments in England and Wales up to 1979, results of earlier Irish assessments could be compared with results of those assessments. Such comparisons reveal that the relatively large gap found in the 1972 assessment between pupils in Ireland and those in England and Wales (in favour of the latter) had decreased considerably (to about one-fifth of a standard deviation) by 1980. Indeed, given the poor psychometric properties of some NS6 items when applied to an Irish population, the difference between Ireland and England and Wales in average achievement may have been negligible by 1980 (Department of Education, 1991).

Previous International Assessments of Reading

Ireland has participated in four international assessments of reading since 1990 (Table 1.2). Only one – the 1991 IEA Reading Literacy Study (IEA/RLS) – included primary pupils, but the outcomes of all four are relevant to the current study.

Table 1.2: International assessments of reading literacy involving Ireland (1990-2003)

Year*	Study	Areas Assessed	Population(s)
1991	IEA Reading Literacy Study	Comprehension of Narrative, Expository Texts, and Documents	9- and 14-year-olds
1994	International Adult Literacy Survey	Prose, Quantitative, and Document Literacy	Adults 16-65 years
2000	Programme for International Student Assessment (PISA)	Reading Literacy (Main domain)	15-year-olds
2003	PISA	Reading Literacy (Minor domain)	15-year-olds

*Indicates year in which data were gathered in Ireland.

In the IEA/RLS Study Irish 9-year-olds (all in Third class, primary level) scored close to overall international and OECD[1] average scores (12th of 27 participating countries, and 10th of 19 OECD countries), performing best on narrative texts, next best on expository texts, and poorest on documents (Martin & Morgan, 1994; OECD, 1995). Irish 14-year-olds (all in Second year, post-primary level) were also close to the international and OECD average scores, ranking 20th of all 31 participating countries and 16th of 19 OECD countries (Martin & Morgan, 1994; OECD, 1993). They performed at about the same level on narrative, expository, and document texts.

The International Adult Literacy Survey (IALS) reported on levels of literacy in quota samples of 16- to 65-year-olds in 22 countries or regions between 1994 and 1998. On the IALS Prose scale, Ireland ranked 14th of 22 countries/regions for which performance was reported (OECD/Statistics Canada, 2000). Irish adults performed significantly less well than adults in ten countries/regions, significantly better in five, and at about the same level in six. Almost one-quarter (22.6%) of Irish adults scored at Level 1 and 30.0% at Level 2 on a 5-point scale, where higher scores are indicative of greater literacy skills. The OECD identified adults at Levels 1 and 2 as having insufficient skills to cope with the literacy demands of society. Percentages of Irish respondents at each level of the IALS documents scale were broadly similar to those for the Prose scale, with Ireland ranking 17th of 22 countries. The relatively poor performance of Irish adults in the IALS study was somewhat unexpected. More recently, an analysis of the Programme for International Assessment (PISA, 2000) data (see below) by Kirsch et al. (2002) suggests an improvement on the IALS prose literacy scale among younger adults in Ireland since 1994-95.

The mean performance of Irish 15-year-olds (the majority of whom were in Third year, post-primary level) in the first cycle of PISA (2000) was significantly higher than the OECD country average, and ranked 5th of 41 participating countries and 5th of 27 OECD countries (OECD/UNESCO-UIS, 2003). Only Finland had a significantly higher mean

[1] OECD: the Paris-based Organisation for Economic Cooperation and Development, which advises member countries, including Ireland, on policy development in a range of areas, including education, and oversees implementation of the Programme for International Student Assessment (PISA).

score. Just 11% of Irish students achieved at or below Level 1 (Level 5 being the highest proficiency level), indicating that these students had very poor literacy skills. In the second cycle of PISA (PISA 2003), students in Ireland again achieved a mean score that was significantly above the OECD country average, ranking 7th of 40 participating countries and 6th of 29 OECD countries (OECD, 2004b). Ireland's mean score was significantly lower in PISA 2003 than in PISA 2000, while the scores of Irish students at the 75th, 90th, and 95th percentiles were also significantly lower in PISA 2003.

The 1999 Primary School English Curriculum (PSEC)

An important change in context between NAER 1998 and NAER 2004 was the introduction of a new PSEC [National Council for Curriculum and Assessment (NCCA), 1999a, 1999b] to schools. Since NAER 1998, both pre-service teachers and teachers in primary schools have received guidance in relation to the PSEC, reading schemes have been revised in substantive ways to reflect changes in the focus, and implementation of the curriculum has begun in schools. This section identifies differences between the current PSEC and its predecessor, the 1971 Primary School Curriculum (Department of Education, 1971). The implications of the differences for the NAER 2004 assessment are examined in more detail in Chapter 2.

The 1971 curriculum identified reading as both a subject of instruction ('learning to read), and a tool for learning ('reading to learn'), and recognised reading as 'an important aid to the child in fulfilling himself [sic] as a child, an aid without which personal and educational development cannot proceed very far' (p. 88). The curriculum suggested a largely skills-based approach to teaching reading. In the Junior classes, this included the teaching of sight words using a look-say method, analytic and synthetic approaches to teaching phonics, and the development of good mechanical reading skills. In the Senior classes, it included the development of meaning vocabulary, reading for different purposes (including reading for important ideas), and information handling skills such as note taking and correlating information from several sources. Although the curriculum emphasised the use of structured reading schemes at all class levels, it also referred to the importance of recreational reading (especially in the context of the school library), with particular focus on developing positive attitudes towards reading. The teaching of writing included the development of mechanical skills, the development of creative writing abilities, and the development of functional writing skills (in the context of project work). Teachers were encouraged to administer standardised tests on a periodic basis to assess pupils' progress in reading.

The framework around the PSEC indicates that reading is viewed as an integral element of English, along with oral language and writing (NCCA, 1999a). Unlike its predecessor, the content of reading is embedded in four strands: receptiveness to language, confidence and competence in using language, developing cognitive abilities through language, and emotional and imaginative development through language. Setting aside issues relating to the usefulness of this framework to teachers (see Eivers, Shiel and Shortt, 2004; NCCA, 2005), it is clear that the curriculum draws heavily on recent research and best practice in the field. For example, in the Infant classes, there is a strong emphasis on developing emergent literacy skills and phonemic awareness (terms that would not have been familiar to educators in 1971, although attention may well have been given to some of the underlying concepts). At the other class levels, there is a clearer line of development in relation to reading comprehension skills, and a broader range of skills than in 1971 is proposed, including inference, prediction, summarisation and evaluation. The curriculum

places a somewhat stronger emphasis than its predecessor on 'response to literature', at the cognitive and emotional levels. It also emphasises more widespread use of class novels in addition to reading schemes. A broader range of text types is also proposed with the addition of representational text (text in the form of diagrams, pictures and graphs) to narrative and informational (expository) texts. A broader range of approaches to assessing pupils' progress in reading is outlined, with standardised testing just one among several methods suggested. Finally, the teaching of writing moves away from the previously strong emphasis on creative writing, towards a process-based approach that includes an emphasis on a broader range of genres. Planning for and revision of written texts are also emphasised.

Implementation of the PSEC

This section examines the extent to which the PSEC is being implemented in Irish classrooms. It is based on three recent reports, two of which are reviews of curriculum implementation – one carried out by the DES Inspectorate (DES, 2005a), the other by the NCCA (2005). The third report, also by the Inspectorate, examined literacy and numeracy in disadvantaged schools, and is subsequently referred to as the LANDS report (DES, 2005b).

The Primary School Curriculum highlights the central role of whole-school planning in improving educational provision. However, the Inspectorate review found that whole-school plans in approximately 60% of schools required further development (DES, 2005a). For example, plans were not linked to the structure and focus of the English curriculum or lacked detail regarding the methodologies adopted in the school. Thus, it is not surprising that the report also noted that more than half of teachers did not link their classroom planning with the school plan. The LANDS report also criticised the quality of some school plans, which were found to influence classroom practice in only a minority of schools (DES, 2005b).

The English curriculum envisions the curriculum strands as the starting points for classroom planning. However, both the NCCA and Inspectorate reviews found that most teachers had difficulty understanding the strands, and used the strand units (oral language, reading and writing) when planning and teaching English (DES, 2005a; NCCA, 2005). The Inspectorate review also found that most teachers' planning emphasised the principles of continuity and progression, considered prior pupil learning, and differentiated their teaching by providing for individual differences. However, the LANDS report (in disadvantaged schools) found that only half of Infant and Junior class teachers differentiated their teaching (DES, 2005b).

According to both Inspectorate reports, all schools administered standardised tests of reading achievement to pupils. However, they noted that most schools could improve their assessment practices, with less than 40% described as displaying competent practices (DES, 2005a). In discussing schools in which significant improvement could be made, it was noted that many lacked formal whole-school procedures for recording pupils' continuing progress and that the results of standardised tests were rarely used to inform teaching and learning. Further, the LANDS study found that most teachers had significant difficulty in organising assessment information about pupils, in recording the results of formative and diagnostic tests, and in maintaining records (DES, 2005b).

The Inspectorate review of curriculum implementation reported that in approximately three-quarters of classrooms, oral language, which has a key role throughout

the curriculum, was taught effectively. Discrete time for oral language development was planned, oral language content objectives were taught explicitly, and the strand 'competence and confidence in using language' was implemented effectively. Further, three-quarters of teachers used a variety of approaches effectively, and encouraged the development of higher order thinking skills. However, in a quarter of classrooms teachers did not refer to the curriculum when planning; as a result, important content objectives regarding the development of language skills in different social contexts were overlooked. Oral language was the strand unit that received the greatest level of support from teachers across all four strands (NCCA, 2005). However, in contrast with teachers' reports, children interviewed as part of the NCCA study were able to provide few examples of their classroom experience with oral language in English.

According to the DES (2005a), the teaching of reading was effective in three-quarters of class settings inspected and in most classes, word identification strategies were developed very effectively. Good practice in developing cognitive abilities through reading in two-thirds of classrooms was also noted. In disadvantaged schools, inspectors rated the quality of literacy teaching as good (DES, 2005b). All class teachers were considered successful in presenting structured reading lessons and, in more than half of classes, children were exposed to a variety of reading genres. In contrast, more than half of teachers were reported as experiencing difficulties in the teaching of writing (DES, 2005a). Inspectors noted that such teachers placed insufficient emphasis on the writing process and were over-reliant on workbook activities. In disadvantaged schools, the teaching of handwriting was judged to be good, although only 16% of children in middle and Senior classes wrote in a variety of genres (DES, 2005b).

The curriculum emphasises that children derive significant benefits from an effective relationship between parents and teachers. While the Inspectorate review found that effective consultation and parental involvement was encouraged in three-quarters of class settings, the LANDS report found that the link between home and school was fair or weak in more than two-thirds of class settings in disadvantaged schools (with links weakest in the middle and Senior classes). Nonetheless, class teachers in disadvantaged schools felt that the Home/School/Community/Liaison (HSCL) scheme was an effective support in encouraging parents of younger children to become involved in literacy. Regarding collaboration within schools, the Inspectorate found evidence of collaborative planning and teaching between the learning-support teacher, the resource teacher, and the mainstream class teacher in only two-fifths of classrooms (DES, 2005a).

Finally, a major societal change that has occurred between the 1971 and 1999 curricula is the extent to which Information and Communication Technologies (ICT) – almost unheard of in 1971 – are now an integral part of society. Children can encounter ICT as a learning topic or as a tool for learning (learning *about* computers, or learning *with* computers). In the NCCA (2005) review, 75% of teachers reported using ICT to support the English curriculum. However, more in-depth analysis revealed that such use was generally limited to typing or transcribing children's written work. Both the Inspectorate and NCCA reviews noted that use of ICT was poor in a majority of classrooms, with little use for research or creative purposes.

Comparing the 1998 and 2004 Assessments

Although the 2004 assessment was modelled on previous assessments, it differed from the 1998 assessment in a number of significant ways. In particular, First class as well as Fifth class pupils were included. There were also changes in test materials and other instruments, and some changes in sample design.

Test Materials and Ancillary Instruments

Fifth class test materials in the 2004 assessment differ in a number of ways from materials in the 1998 assessment. Firstly, whereas the 1998 assessment used only multiple-choice items, a proportion of the items in 2004 used open response formats. Secondly, of the five Fifth class booklets used in 2004, two were identical to those used in 1998, one was very similar, while two were new. Thirdly, all items in 1998 had been categorised using one of three reading processes (local, textwide, or textplus). In 2004, the classification of reading processes was updated, to reflect more recent research on reading. Consequently, all items were classified as representing either the retrieve, infer, interpret, or evaluate process. These differences are explained in more detail in Chapter 2.

Four ancillary instruments – School Questionnaires, Pupil Rating Forms, Parent Questionnaires, and Pupil Questionnaires – were retained from the 1998 assessment, although some items were modified, and additional items included. Where required, versions appropriate for First class were developed. Three new questionnaires – for class teachers, learning-support teachers, and inspectors – were introduced in 2004. A more detailed description of all ancillary instruments is provided in Chapter 2.

Sample Design

As in 1998, a two-stage sample selection was used (the first stage involving the selection of schools; the second, selection of pupils). However, the design was more complex in 2004 then in 1998, because it involved selecting schools to participate in what were essentially *three* surveys (NAER First and Fifth classes, and Fourth class pupils for the concurrent National Assessment of Mathematical Achievement [NAMA]). Additional details on sample design are provided in Chapter 3.

As in 1998, schools were divided into strata (categories) based on enrolment size, and, within strata, were sorted by size and gender composition. However, in 2004 there was additional sorting within strata by designated disadvantaged status and area or language of instruction (i.e., Gaeltacht, Gaelscoil, or Ordinary School). At the second stage of sampling (i.e., selection of pupils within schools), the technique differed from that in 1998. While in 1998 a random sample of Fifth class pupils was selected within each school, the 2004 assessment randomly sampled up to two intact classes within a school.

Test Administration

In 1998, the test materials were administered by members of the Inspectorate. This was not feasible in the 2004 assessment, due to its larger scale (and the concurrent mathematics assessment), and the need to conduct all testing within a short time period. Therefore, administration of test materials and Pupil Questionnaires was by class teachers, under the supervision of an inspector.

Factors Associated with Reading Achievement

Tables 1.3 to 1.5 list some of the main correlates of reading achievement, based on previous research, and categorised as referring to individual pupil characteristics, characteristics of pupils' homes and characteristics of schools and classrooms. The tables also provide references to some relevant research studies. Given the nature of the current survey, priority for inclusion in these tables was assigned to research that met one or more of the following criteria: recent, Irish-based, or relating to primary-aged pupils. Consequently, the research by Cosgrove, Kellaghan, Forde and Morgan (2000) and by Eivers, Shiel and Shortt (2004) are frequently cited. The former study describes the results of the 1998 national assessment of reading in Ireland, while the latter one describes a recent (2003) survey of the reading achievements of pupils in designated disadvantaged schools in Ireland.

The study by Mullis, Martin, Gonzalez, and Kennedy (2003) reports on the outcomes of the Progress in International Reading Literacy Study (PIRLS), an international survey of fourth grade pupils in which Ireland did not participate, but which nonetheless provides useful recent information on variables associated with the reading achievements of primary school pupils. Research by Cosgrove, Shiel, Sofroniou, Zastrutzki and Shortt (2005) also has a number of citations, as, although the study examined the reading achievements of 15-year-olds, it is a recent Irish study, and includes a multilevel model of achievement (as does the Eivers et al. study). Multilevel models allow the relationships between achievement and a number of explanatory variables to be examined simultaneously. Such models can be contrasted with univariate analyses, where the relationship between variable A and variable B are examined without reference to other variables. Thus, an apparent relationship between two variables may be found because both are related to a third, not considered, variable. In particular, relationships between achievement and many variables are often found to be non-significant when socioeconomic status is also considered. In the following sections, we have tried to consider the influence of socioeconomic status when discussing variables that research has found to be associated with achievement. However, this is not always possible – something that readers should bear in mind when reviewing the research findings.

Individual Characteristics

Numerous individual pupil characteristics have been found to be associated with reading achievement (Table 1.3). Some are not manipulable, such as gender and age, while others relate to attitudinal and behavioural constructs. Girls typically perform better than boys on tests of reading achievement, and pupils who are significantly older or younger than average tend to have below average achievement (Cosgrove et al., 2000; Eivers et al., 2004). In Ireland, pupils in disadvantaged schools who typically spoke a language other than English or Gaeilge at home had lower than average English reading achievement, but the difference was significant for only one (Sixth class) of the three grades assessed (Eivers et al, 2004). Pupils who were members of the Traveller community typically had significantly lower English reading achievement than pupils from the settled community (Cosgrove et al., 2005; Eivers et al., 2004).

A number of studies have also found that certain pupil activities are associated with reading achievement. These include frequent engagement in leisure reading and use of public libraries, below average time spent on other leisure activities (e.g., playing computer games or watching TV), and engagement in a positive manner in classroom activities (e.g. Cosgrove et al., 2005). Moreover, pupils who use metacognitive strategies (e.g., self-

monitoring of learning) typically read better than their classmates who do not use such strategies (Duffy & Roehler, 1987). Many attitudinal variables are also associated with reading achievement, including enjoyment of, and interest in, reading and pupils' motivation for reading (Baker & Wigfield, 1999; Cosgrove et al., 2000; Eivers et al., 2004). Pupils' ratings of themselves as readers tend to correlate positively with other measures of achievement. Academic aspiration and expectation are linked to reading achievement (e.g., those who want to, or expect to, attend college typically have higher reading achievement than those who want to leave school after Junior Certificate) (Cosgrove et al., 2000; Eivers et al., 2004; Weir & Milis, 2001).

Among more school-related characteristics associated with reading achievement, attendance is probably the most widely-recognised. Regular attenders are generally better readers than students with poor attendance records (Cosgrove et al., 2000; Eivers et al., 2004). Preschool attendance can be associated with later differences in reading achievement, but the effects, if any, would appear to depend on the preschool programme. While American research has found certain forms of intensive (full day and year round) pre-schools to be associated with significant achievement gains (Boocock & Larner, 1998), Irish research has found no significant effects for the Early Start programme (Kelly & Kellaghan, 1999), but some benefits for the Rutland Street Project (Kellaghan & Greaney, 1993). The structure and content of the Early Start programme has been significantly modified since achievement outcomes were last assessed. However, the fact that it remains a half-day, term-time programme may constrain its potential positive effects on achievement.

Table 1.3: Summary of pupil characteristics associated with reading achievement, and associated research

Pupil Characteristics	*Relevant Research*
Gender, age, first language	Cosgrove et al., 2000; Cosgrove et al., 2005; Eivers et al., 2004; Mullis et al., 2003; Snow, Burns & Griffin., 1998
Member of the Traveller community	Cosgrove et al., 2005; Eivers et al., 2004
Leisure reading, reading preferences, use of libraries	Cosgrove et al., 2000; Cosgrove et al., 2005; Eivers et al., 2004; Elley, 1992;
Engagement in other (non-reading) leisure activities	Cosgrove et al., 2000;
Engagement in class (e.g., behaviour, attendance, etc.)	Cosgrove et al., 2000; Eivers et al., 2004
Use of metacognitive strategies	Duffy & Roehler, 1987
Attitudes towards reading; interest in and motivation towards reading	Baker & Wigfield, 1999; Cosgrove et al., 2000; Eivers et al., 2004; Guthrie & Wigfield, 2000
Self-efficacy for reading and learning	Cosgrove et al., 2000; Eccles, Adler, Futterman, Goff, Kaczala, Meece & Midgley, 1983; Nicholls, 1979; Schunk, 1984
Academic aspirations and goals	Cosgrove et al., 2000; Cosgrove et al., 2005; Eivers et al., 2004; Weir & Milis, 2001
Pupils' reading and writing standards (teacher assessed/self-assessed, and perceived teacher expectations)	Cosgrove et al., 2000; Eivers et al., 2004; Weir & Milis, 2001
Attendance at school	Cosgrove et al., 2000; Eivers et al., 2004; Kain & O'Brien, 1999
Attendance at preschool	Boocock & Larner, 1998; Eivers et al., 2004; Kellaghan & Greaney, 1993; Kelly & Kellaghan, 1999
Homework habits	Cosgrove et al., 2000; Cosgrove et al., 2005; Eivers et al., 2004
Receipt of additional support (e.g., learning support, resource and/or language support teaching)	Cosgrove et al., 2000; Eivers et al., 2004;

Although one might expect to find higher reading achievement among pupils who are assigned English homework on a regular basis, and spend a considerable amount of time completing homework, the evidence is somewhat mixed. For example, while pupils who rarely or never complete English homework tend to have poorer achievement scores than those who regularly complete homework, pupils in primary school who spend a considerable amount of time completing homework tend to have poorer achievement scores than those who spend relatively little time so doing (e.g., Eivers et al., 2004). However, the latter relationship is confounded by ability (the same amount of homework can probably be completed more quickly by high achieving pupils). At post-primary level, Irish data from the PISA study indicated that increased time spent completing homework was associated with higher reading achievement, as was completing homework on time. Finally, and not surprisingly, there are clear associations between receipt of additional support (learning support, resource or language support teaching) and lower reading achievement (Cosgrove et al., 2000; Eivers et al., 2004).

Characteristics of the Home Environment

Table 1.4 summarises some of the features of the home environment and family characteristics which have been found to be associated with reading achievement. Many Irish and international studies have found strong associations between family socioeconomic status (SES) – including employment status, occupation, income, medical card coverage, and education – and reading achievement (e.g., Cosgrove et al., 2000; Cosgrove et al., 2005; Eivers et al., 2004; OECD, 2001). Although the strength of the relationship varies across cultures, and with the measure of SES used (OECD, 2001), pupils from high SES families typically have much higher reading achievement scores than pupils from low SES families. Other family characteristics associated with lower pupil achievement include having a large number of siblings, speaking a language other than the language of instruction at home, and coming from a lone-parent family.

Relationships have also been found between reading achievement and 'home process' and 'home atmosphere' variables. Pupils who have above average reading achievement tend to come from homes characterized by frequent parent-child literacy interactions (particularly before formal schooling begins), where parents are regular readers, and where children can readily access resources such as books (Cosgrove et al., 2000; Cosgrove et al., 2005; Eivers et al., 2004). Other factors positively associated with reading achievement include parental provision of academic guidance, high academic aspirations and expectations for children, parental rules about homework and TV viewing, and parents' awareness of, and interest in, their child's schooling (Cosgrove et al., 2000). The relationship between many home atmosphere variables and achievement is complex, largely because many such variables co-vary with SES. For example, high SES homes typically have more books than low SES homes. However, there is evidence that how parents interact with their children can matter more than parental SES (see Kellaghan, Sloane, Alvarez, & Bloom, 1993 for a review of the relevant research). Further, Eivers et al. (2004) found that home process variables can affect reading achievement, even after controlling for SES and a range of other variables.

Table 1.4: Summary of family and home background characteristics associated with reading achievement, and associated research

Family and Home Background	*Relevant Research*
Family characteristics (e.g., structure and size, language in the home, SES)	Cosgrove et al., 2000; Cosgrove et al., 2005; Eivers et al., 2004; OECD, 2001
Home educational processes (e.g., child-parent literacy interactions)	Cosgrove et al., 2000; Eivers et al., 2004; Mullis et al., 2003
Availability of academic guidance and support in the home	Kellaghan, Sloane, Alvarez & Bloom, 1993
Parental reading habits and attitudes to reading	Eivers et al., 2004; Mullis et al., 2003
Disciplinary climate (e.g., rules about TV viewing)	Cosgrove et al., 2000
Academic aspirations and expectations for children, and interest and knowledge in children's school life	Cosgrove et al., 2000; Eivers et al., 2004
Home literacy resources (e.g., access to books in the home)	Cosgrove et al., 2000; Cosgrove et al., 2005; Eivers et al., 2004; Mullis et al., 2003

School and Classroom Characteristics

Table 1.5 lists some school and classroom (or teacher) variables associated with reading achievement. As with family background, SES has one of the strongest school-level associations. Schools with a predominantly low SES enrolment generally have significantly poorer average pupil achievement than schools where most pupils are from middle or high SES backgrounds (see Weir, 2001 for a review of Irish research in this area). For example, pupils in Irish primary schools that are designated as disadvantaged typically have, on average, significantly lower mean achievement scores than pupils in non-designated schools (Cosgrove et al., 2000). Furthermore, there is evidence of a school-level SES effect on achievement, over and above the effect of an individual pupil's SES (Eivers et al., 2004, Shiel et al., 2001). Thus, holding all other variables constant, a pupil from a low SES family will, on average, be expected to have significantly poorer reading achievement if s/he attends a low SES school than if s/he attends a high SES school. In the Eivers et al. study, the effect of school-level SES was most pronounced for boys, meaning that boys attending low-SES schools are particularly at risk of poor reading achievement.

As at the level of the individual, school-level attendance rates are linked to achievement. Schools with high average pupil attendance rates tend to have higher average reading achievement than schools where attendance is poorer. Furthermore, average school reading achievement tends to increase as the proportion of girls in a school increases (Eivers et al., 2004). School size and location are other factors that have been linked to pupil achievement, with smaller schools or rural schools sometimes found to have a positive effect on achievement. However, there are many difficulties with these variables, not least because what constitutes a small or a rural school can vary enormously from study to study. Indeed, many of the 'small' schools described in American research would be classified as large by Irish standards, while some of the US 'rural schools' would be considered to be 'town schools' in Ireland. Further, Irish small schools often have multigrade classrooms, another confounding variable. Nonetheless, the balance of evidence would suggest that there may be some benefits to achievement associated with smaller or rural schools (see Cotton, 1996, or Mulryan-Kyne, 2004, for reviews of some of the issues related to this topic).

Smaller class size is popularly assumed to be associated with improved reading achievement. However, research provides mixed results. In Ireland, for example, some research has found that smaller class size has a weak negative association with achievement (Eivers et al., 2004). However, this is largely due to smaller class sizes being concentrated in disadvantaged schools, and the association is not significant once SES is factored in. American research, while also providing mixed results, suggests that, on balance, reduction in class size can lead to improved reading achievement [see Pritchard (1999) for a review of some studies in this area]. Positive effects are typically observed for reduced class size in the Junior grades, with effects less clear for Fourth grade upwards. However, as Hertling, Leonard, Lumsden, Smith and Picus (2000) noted, observational studies generally indicate little difference in teaching practices when class size is reduced (despite teachers' beliefs that they were teaching differently). Thus, potential positive effects from a reduction in class size may be constrained by the use of teaching strategies more appropriate for larger class sizes.

Stronger home-school links (e.g., the existence of a Parents' Association, high attendance at parent-teacher meetings) are generally found to be associated with higher pupil achievement. Again, however, the association is confounded by SES, as high SES schools are more likely to have Parents' Associations and to have higher attendance at parent-teacher meetings. In Ireland, HSCL posts are sanctioned only in designated disadvantaged schools, making it difficult to disentangle the effects of the scheme from SES. Nonetheless, a small-scale evaluation of the scheme in six schools found significant improvements in the reading achievement of pupils in First and Third classes, but not in Fifth class (possibly because the scheme typically focuses on parents of pupils in the Junior classes) (Ryan, 1999).

Aspects of school management, organisation and climate can also be associated with reading achievement. School effectiveness researchers, such as Taylor, Pressley and Pearson (2002) have found that strong leadership, collaboration among staff, and an emphasis on professional development are features of effective schools that are associated with superior reading achievement. Irish research has also found a link between a negative disciplinary climate in English classes (as perceived by students) and poorer student reading achievement (Shiel et al., 2001). Monitoring pupil achievement is another feature of schools and classrooms associated with reading achievement. Regular assessment and monitoring of achievement is a characteristic not only of effective schools (Sammons, Hillman, & Mortimore, 1995), but also of effective teachers (Wray, Medwell, Poulson, & Fox, 2001).

How schools provide additional support to low-achieving pupils can affect achievement. Research from programmes such as the US-based Success for All suggests that where a large proportion of a school's enrolment are in need of additional support, whole-school restructuring of reading instruction may prove more effective than simply offering additional support to low-achieving pupils (e.g., Borman, Hewes, Overman, & Brown, 2003; Slavin & Madden, 2003). Some support for the need to restructure is offered by Shiel, Morgan, and Larney's (1998) study of remedial education provision in Irish primary schools, which found that while participation in remedial classes was generally associated with improvement in reading achievement, this was not so in the case of pupils in designated disadvantaged schools.

There is evidence of a link between teacher qualifications and experience and pupil achievement, although Irish evidence in this regard is relatively weak. For example, Eivers et al. (2004) did not find a relationship between whether a teacher was qualified or not and

the reading achievement of his or her pupils, but did find a weak correlation between average pupil achievement in a school and the proportion of teaching staff that were qualified. However, this reflects a problem with cross-sectional surveys, where pupils' educational histories are not considered fully (e.g., while a pupil may have had a qualified teacher at the time of the assessment, the qualifications of the pupil's previous teachers are not considered). Evidence from other countries suggests that, tracked over time, pupil achievement is linked to teacher qualification. For example, Darling-Hammond and Ball (1997), synthesizing data from a number of sources, estimated that the combined effects of teacher qualifications, experience, and expertise explained more variance in pupil achievement than that explained by a combination of class size, school size, and pupil background characteristics (excluding parental educational attainment).

Eivers et al. (2004) found a weak link between a teacher's experience and a pupil's reading achievement, with the strength of the link diminishing in the Senior classes. Again, there are problems in interpreting these data, which are cross-sectional, not longitudinal. The finding of Teddlie and Stringfield (1993) that less experienced teachers were a feature of effective low-SES schools suggests that the relationship between teaching experience and pupil achievement is not straightforward, at least in very disadvantaged schools. Further, the effects of teaching experience may be moderated by the effects of professional development. Engagement in ongoing professional development can lead to modest gains in pupil achievement. For example, the US National Assessment of Educational Progress found that teachers who had more professional training were likely to use a wider variety of instructional practices, and less likely to engage in extensive use of activities such as reading kits and basal readers [National Center for Education Statistics (NCES), n.d., cited in Darling-Hammond, 2000]. Taylor, Pearson, Peterson and Rodriguez (2004) found that professional development was most effective (in terms of effects on pupil achievement) when it was evidence-based, ongoing, involved collaboration amongst school staff, and provided opportunities to reflect on practice.

Use of certain instructional and assessment practices can lead to improved pupil reading achievement. Instructional practices associated with effective teaching of reading include frequent use of small-group instruction (at least in Junior classes), use of a range of word-recognition strategies, and use of higher level comprehension questions (Taylor et al., 2002). In particular, the use of formative assessment has been found to have positive effects on learning, with effects strongest where pupils engage in self-assessment, and where teachers follow structured feedback procedures (Black & Wiliam, 1998). Black and Wiliam reported moderate to large effect sizes (between 0.4 and 0.7) for the use of formative assessment (their work was a meta-analysis of studies of formative assessment), with low-achieving pupils obtaining the most benefits.

Aside from instructional *practices,* use of certain instructional materials may influence pupils' acquisition of reading skills. American research has found positive effects on pupil achievement in schools that adopt reading programmes that emphasise using diverse books and resources, with a low emphasis on use of basal readers (Guthrie, Schafer, Von Secker, & Alban, 2000). Teachers who experience regular professional development are less likely than other teachers to rely on basal readers. In Ireland, the Reading Recovery programme (and its associated materials) has attracted considerable interest. Originally developed in the 1970s by Marie Clay, Reading Recovery is widely used in many countries, although there has been debate about its efficacy. For example, it has been criticised for aiming to bring low-achieving pupils up to the average level in their class (an inappropriately low target in disadvantaged settings), for the minimal impact it has on overall achievement within a school, and for the large numbers of pupils that are not

included in analyses of programme efficacy (Hiebert, 1994; Shanahan & Barr, 1995). On the other hand, research on the implementation of Reading Recovery in a number of schools in County Monaghan suggests that it had a direct positive effect on pupil achievement and positive effects on the teaching of reading in participating schools (by teachers not directly involved in the programme) (Murtagh & Ní Threasaigh, n.d.).

Table 1.5: Summary of school and classroom characteristics associated with reading achievement, and associated research

School and Classroom Characteristics	*Relevant Research*
SES composition	Cosgrove et al., 2000; Cosgrove et al., 2005; Eivers et al., 2004; Weir, 2001; Shiel et al., 2001
School characteristics (e.g., size, gender composition, location)	Cotton, 1996; Cosgrove et al., 2000; Cosgrove et al., 2005; Eivers et al., 2004
Class characteristics (e.g., class size, multi-grade classes)	Eivers et al., 2004; Mullis et al., 2003; Mulryan-Kyne, 2004; Pritchard, 1999
Attendance rates	Cosgrove et al., 2000; Eivers et al., 2004; Shiel et al., 2001
Home-school links	Cosgrove et al., 2000; Eivers et al., 2004; Ryan, 1999
School management, organisation and climate	Shiel et al., 2001; Taylor et al., 2002
Monitoring pupil achievement	Black & Wiliam, 1998; Sammons et al., 1995; Wray et al., 2001
Identifying/screening and grouping pupils for learning support	Borman et al., 2003; Shiel et al., 1998; Slavin & Madden, 2003
Teacher characteristics (e.g., qualifications, teaching experience)	Darling-Hammond & Ball, 1997; Eivers et al., 2004; Teddlie & Stringfield, 1993
Participation of teachers in professional development in English	NCES, n.d. (cited in Darling-Hammond, 2000); Taylor, Pearson, Peterson & Rodriguez (2004)
Instructional materials (e.g., usage of Reading Schemes and other materials)	Guthrie et al., 2000
Classroom resources and facilities (e.g., nature and use of library facilities)	Elley, 1992
Instructional and assessment practices	Black & Wiliam, 1998; Taylor et al., 2002

2. Survey Framework and Assessment Instruments

There are five main sections in this chapter. The first provides a brief overview of the nature of reading. The second describes the content and processes underlying reading, and relates these to the main instruments used in the survey. The third summarises the content of various ancillary questionnaires designed to provide contextual data. The fourth section describes the pilot study and the fifth section the characteristics of the test instruments used in the main study.

Defining Reading

The 1993 and 1998 NAER surveys drew on a definition of reading provided by Wixson and Peters (1984):

> Reading is the process of constructing meaning through the dynamic interaction among the reader's existing knowledge, the information suggested by the written language, and the context of the reading situation.

As with many definitions of reading, comprehension ('constructing meaning') is central. However, the reader's own characteristics are also central to *how* meaning is constructed. Comprehension is not simply a matter of reading what the author wrote; what is comprehended also depends on the reader, and what he/she knows. This is reflected in the 1999 Primary School English Curriculum (PSEC), which notes that comprehension ('reconstruction of meaning') 'grows gradually and in the process is redefined, revised and reformulated by the reader when he/she engages in reading the text and in reflecting on it' (NCCA, 1999b, p. 61).

More recent definitions of reading have addressed the functions and purposes of reading, with particular emphasis on readers *using* texts, rather than just understanding them. For example, the Progress in International Reading Literacy Study (PIRLS) defines reading as:

> …the ability to understand and use those written language forms required by society and/or valued by the individual. Young readers can construct meaning from a variety of texts. They read to learn, to participate in communities of readers, and for enjoyment (Campbell, Kelly, Mullis, Martin, & Sainsbury, 2001, p.3).

The curriculum also emphasises how readers use text, noting that the acquisition of reading skills 'is central to the effective learning in every area of the curriculum and to the child's social and community life outside school' (NCCA, 1999b, p. 26). The current study, while using the Wixson and Peters definition of reading, supplements it with part of the definition used in PIRLS:

> Reading is the process of constructing meaning through the dynamic interaction among the reader's existing knowledge, the information suggested by the written language, and the context of the reading situation. Young readers read to learn, to participate in communities of readers, and for enjoyment.

Reading Content and Processes

NAER 04 used a content-by-process classification similar to that used in NAER 93/98. Thus, the *content* categories in reading were cross-classified with the types of *process* involved in reading. However, the manner in which these two aspects of reading were conceptualised was updated to reflect more recent views on reading, as evidenced in recent international assessments and the PSEC.

Reading Content

A central element of any assessment is that the materials chosen are appropriate for the pupils to be assessed. To ensure that this was the case, two reviews were undertaken. Firstly, for Fifth class only, the contents of Tasks for the Assessment of Reading Achievement (TARA) 93/98 were reviewed. Secondly, the contents of current English textbooks for both First and Fifth class were analysed, as well as relevant sections of the PSEC guidelines for teachers.

Content in TARA 93/98

TARA 93/98 focussed on three major domains, or aspects, of reading:

- **Narrative prose**: continuous text in which the main aim is to tell a factual or fictional story
- **Expository prose**: continuous text in which the main aim is to convey factual information or opinion
- **Documents**: structured information, presented as charts, tables, maps, lists or sets of instructions.

The last domain, documents, was largely composed of reference texts, such as excerpts from a dictionary or a timetable. However, more recent international research on reading has emphasized the distinction between continuous and non-continuous texts (e.g., Kirsch, 2001 [IALS]; Kirsch et al., 2002 [PISA]). Kirsch (2001) points out that while

> …continuous texts are typically composed of sentences organised into paragraphs … The organisation of non-continuous texts is different from continuous texts and so allows the reader to employ different strategies for entering and extracting information. Most frequently, non-continuous texts are organised in matrix format, based on combinations of lists. (2001, p.13)

In light of these views, it was decided that the narrow focus of the documents element of TARA (largely limited to reference material) should be expanded to include non-continuous texts that contain functional information (e.g., forms, advertisements, diagrams, and maps).

Content Currently Encountered by Pupils

The PSEC classifies text as either expository (the principal function is to inform and explain); narrative (the text is mainly concerned with telling a story); or diagrammatic/representational (the text is designed to present and illustrate information). It recognises the need for pupils to engage with a range of texts as they progress through school. For example, the curriculum suggests that Fifth/Sixth class pupils should read a range of narrative texts, including stories, myths, legends, novels, and plays. It also

suggests that they should engage with a range of informational texts (e.g., learning about the structure and function of parts of a newspaper) and explore a variety of representational and diagrammatic texts (e.g., read and interpret texts such as forms, menus, and timetables, and be able to find information using texts, graphs, flowcharts, and texts with pictorial and diagrammatic data).

Although the PSEC advocates that pupils encounter a range of text types, the relative emphasis that different text types are to receive is not made explicit. Consequently, current English textbook series for First and Fifth classes were analyzed to establish the proportion of text devoted to literary experience or to acquiring and using information, and the proportion of texts that were continuous or non-continuous. Types of themes and topics addressed were also examined.

Whereas 80% of the First class books series were devoted to narrative short stories for literary experiences, this fell to 65% for Fifth class books (percentages are of word counts). Expository and representational texts comprised 20% of First class materials, and 35% of materials for Fifth class. Common themes in First class texts included animals or monsters, fantasy, books and reading, playing, sleeping, and transport. For Fifth class pupils, topics were more varied and included nature and science, sports and hobbies, history and geography, people and culture, art, personal health and safety, and transport. A more detailed description of the textbook analyses can be accessed at http://www.erc.ie/na2004.html.

Content in TARA 2004

Although TARA 04 used the same content categories as were used in TARA 93/98 (narrative, expository and documents), there were some changes in the proportion of items representing each content area. At Fifth class, the proportion of document items was increased, reflecting the inclusion of a broader range of non-continuous texts. However, the full effects of this increase will not be apparent until all Fifth class TARA booklets have been revised. At both grade levels, narrative items represented the largest content category, reflecting the prevalence of narrative texts in the types of texts typically encountered by pupils. A fuller description by content is provided in the last section of this chapter.

Reading Processes

As with content, the type of reading processes examined in TARA 04 were guided by TARA 93/98 and by the PSEC, as well as by international studies of reading.

Reading Processes in TARA 93/98

TARA 93/98 described reading outcomes for three process categories:

- **Local**: meaning is constructed from one, two, or three contiguous sentences. Literal questions are typically used, although simple inferences might sometimes be required.
- **Text-wide**: the reader requires inferential comprehension to integrate information from across the text, other than that specified in Local.
- **Text-plus**: the reader must use information from his/her own experience as well as in the text. Inferential comprehension and/or evaluation is required.

More recent research has attempted to specify the underlying processes in greater detail. For example, IEA/RLS specified six levels of processing, while IALS specified four. However, neither of these studies reported performance by process area. PISA identified five processes, which were subsequently collapsed into three for reporting purposes: retrieve information; interpret information; and reflect on/evaluate the content and structure of text. The PIRLS framework describes four types of comprehension processes: retrieve information; make straightforward inferences; interpret and integrate ideas and information; and examine and evaluate aspects of the text. Unlike PISA, PIRLS has yet not reported achievement in terms of these reading processes; rather, reading achievement is reported in terms of purpose (literary experience and information acquisition) (Mullis et al., 2003).

Processes and the Primary School English Curriculum

The classification of reading processes in TARA 04 (see below) is consistent with the PSEC, which places an emphasis on the retrieve and infer processes in Junior classes and on the interpret and evaluate processes in Senior classes. For example, the curriculum states that First/Second class pupils should be able to recall details and events (*retrieve)*, assimilate facts, and retell stories (*infer*). Pupils are also expected to be able to respond to characters and events in a story, to imagine what it would be like to be certain characters, and to give an opinion of a text (*interpret*, and, to some degree, *evaluate*). However, the emphasis on these latter processes is considerably less than the emphasis on retrieve and infer. The First class test for NAER 2004 mainly assesses the retrieve and infer processes, with a lesser emphasis on interpret, and does not contain any items classified as requiring evaluative processing.

At Fifth/Sixth class, the PSEC indicates that pupils should be able to engage in multiple higher order skills, including using comprehension skills to aid deduction, problem-solving, and prediction; supporting arguments and opinions with text-based evidence; relating personal experience to ideas and emotions conveyed in the text; distinguishing fact from opinion; and examining similarities and differences in various types of text. Relating these to reading processes, Fifth class pupils are expected to be able to infer, interpret and evaluate (with greater emphasis on interpretation and evaluation). The Fifth class test for NAER 2004 mainly assesses the interpret and evaluate processes, but also includes the retrieve and infer processes so that the reading skills of basic level readers can be reported.

Reading Processes in TARA 04

To reflect the increased emphasis given to processes underlying reading comprehension, it was decided to elaborate on the process categories for TARA 04. There is a high degree of similarity between the four types of processes identified in PIRLS and the skills categories described in TARA 93/98. Moreover, since PIRLS focused on 9-year-olds, it seemed the most developmentally appropriate model for TARA 04. Consequently, the PIRLS processes were adopted for use in TARA 04. Each of the processes is explained briefly in Inset 2.1, and thenceforth referred to in the abbreviated forms (**retrieve**, **infer**, **interpret,** and **evaluate**).

Inset 2.1: Reading Processes in TARA 04

Retrieve information: requires that the reader understand what is stated in the text, and how it relates to the information sought. Corresponds closely to the literal element of the *Local* process category associated with TARA 93/98.

Inferences*:* requires direct inference from the text. May require focus on local meaning, or on more global meanings representing the whole text. Corresponds to TARA 93/98 categories of *Local* (if required to focus on a meaning in part of the text) or the inferential element of *Text-wide* (if required to focus on meanings across the text as a whole).

Interpret and integrate*:* may require some integration of personal knowledge/experience with meaning that resides in the text in order to construct a more complete understanding of the text. Corresponds to TARA 93/98 categories of *Text-wide* (if integrating ideas) and the evaluative element of *Text-plus* (if interpreting ideas and information).

Examine and evaluate*:* focus shifts from constructing meaning to evaluating text, either from a personal perspective or from a more critical and objective viewpoint. Corresponds to TARA 93/98 evaluative element of *Text-plus* category.

Development of Ancillary Questionnaires

Both the 1993 and 1998 surveys used a number of ancillary questionnaires to obtain contextual data on achievement. These included School, Parent, and Pupil Questionnaires, as well as Pupil Rating Forms. Similar questionnaires were used in the current study, with many items retained from the earlier surveys. Three new questionnaires, designed to obtain data from class teachers, learning-support teachers, and inspectors, were introduced in 2004. In the case of the School, Learning Support and Inspector Questionnaires, sections dealing with the teaching of Mathematics were included for the concurrent Mathematics assessment. These questions are not discussed here; for further information, see Shiel, Surgenor and Close (in preparation). All ancillary questionnaires used in NAER 04 can be viewed at http://www.erc.ie/naer04/e-appendix.

School Questionnaire

The School Questionnaire was completed by the principal of each school. Excluding sections related to Mathematics, it contained seven sections. The first, *General Information,* included questions about school enrolment and policies relating to reading instruction, while the next section, *Staff in your School,* asked about numbers of staff in the school, as well as frequency and content of staff meetings. The next two sections examined the *Provision of Learning Support and Resource Teaching* and *School Resources – English* (including availability of computers and books, and problems faced when teaching English). The section entitled *Home-School Links* sought information on schools' levels of engagement with parents, while the focus of the two final sections, *School Planning* and *Assessment* was planning and assessment issues related to English, including the frequency with which various types of assessment were used.

Content is similar to that in 1998, with the exception of new questions on the first languages of pupils, and the organisation of learning support. Although many of the questions were modified or rephrased in some way, the changes are slight and comparison can be made with 1998 questionnaire data.

Teacher Questionnaire

Teacher Questionnaires were developed for First and Fifth class levels, and were identical apart from specific references to the curriculum at each class level. There were four main sections in the questionnaire. The first section – *General Information* – included questions about teachers' qualifications, teaching experience, experience of in-career development (ICD), and opinions about the PSEC. The section entitled *Teaching English* requested information on the implementation of specific aspects of the PSEC, resources used and strategies employed in the teaching of English reading. Other items examined use and availability of books and computers, and the frequency with which pupils were given homework and assessed by various means. The *Learning Support and Resource Teaching* section addressed familiarity with the Learning-Support Guidelines (LSG) and the extent to which learning support is perceived to be integrated with classroom practices. Finally, *Your School* ascertained teachers' opinions on a variety of issues relating to school 'climate'.

Pupil Rating Form

Pupil Rating Forms were developed to gather contextual information about each pupil who participated in the survey. Class teachers were asked to provide some background details about each pupil and to rate them on a number of variables. Areas covered included background variables (e.g., parental occupational status, language spoken at home), pupil engagement with school (e.g., attendance, behaviour and participation in class), and teacher ratings of pupil achievement in English. The First and Fifth class versions of the Pupil Rating Form are almost identical.

Pupil Questionnaire – Fifth class

The Fifth class Pupil Questionnaire included most of those items used in 1998, covering reading interests, homework content and frequency, amount of time spent watching television or playing computer games, and educational aspirations and expectations. Additional items gauged attitudes to reading, motivations for reading, and the use of metacognitive strategies before, during, and after reading.

Pupil Questionnaire – First class

The First class Pupil Questionnaire was considerably shorter and simpler than the Fifth class version. Items examined attitudes to reading, interest in and motivation towards reading, self-efficacy for reading and learning, engagement in leisure reading and reading preferences, use of libraries, and the content and frequency of English homework.

Parent Questionnaire

The Parent Questionnaire was identical for both grade levels. It included many of the items used in 1998, covering family characteristics, home educational processes, availability of academic guidance and support in the home, parental reading habits, disciplinary climate, educational aspirations and expectations for children, home literacy resources, and standards set for children's achievement. It also included more detailed items relating to socioeconomic status, and items on parental attitudes to reading which were similar to questions in the Pupil Questionnaire (allowing examination of cross-generational attitudes).

Learning-Support Teacher Questionnaire

A questionnaire was developed specifically for learning-support teachers. The first section sought background information, including gender, teaching experience, and whether the respondent had completed a recognised course in learning support. The next section examined caseload, proportion of time allocated to various activities, and contact with parents. The final section examined experience of ICD, opinions about the LSG, and the provision of English learning support in the school.

Inspector Questionnaire

A questionnaire was developed to establish the views of members of the Inspectorate about issues relating to the teaching of English. Respondents were asked how many years they had worked as an inspector, and about the extent of their experience observing lessons, completing School Reports, or examining probationary teachers. Further questions established views on the effectiveness of different approaches to teaching English, the extent to which various approaches were used, and the availability and use of resources for teaching English. Inspectors were asked about the degree to which aspects of the PSEC were being implemented successfully, and their perception of how teachers dealt with high and low ability pupils was ascertained. Finally, respondents were asked to indicate curriculum areas in which more pre-service training or ICD were required, and to describe any gender differences they may have observed in pupils' reading achievement.

Pilot Study

Details of the pilot study, summarized here, are available in the NAER Assessment Framework (http://www.erc.ie/na2004.html). The draft tests, questionnaires and administrative procedures were tested in a pilot survey of First and Fifth class pupils in May 2003. While all material at First class was new and required piloting, almost all of three of the five TARA 93/98 test booklets were retained in NAER 2004 at Fifth class level. Therefore, only the new material was piloted at Fifth class level. Administration of tests and questionnaires was carried out by classroom teachers, overseen by members of the Inspectorate. Both inspectors and teachers were encouraged to give feedback on the assessment. Such feedback, together with the data, was used to guide revisions to the tests and questionnaires. The sample was a convenience one of 32 schools located in Dublin, Cork and Limerick, chosen to represent a mix of schools by gender composition, size, designated disadvantaged status, and language of instruction. All 32 schools agreed to participate. Almost 2,000 pupils (1148 in First class and 712 in Fifth) were administered TARA 04 and a link test, while questionnaires were administered in seven of the schools.

Overall mean missingness (items not attempted) on TARA 04 was close to 5% at First class and 4% at Fifth, indicating that the timing and length of the test were appropriate for the grade levels being assessed. Following an analysis of differential item functioning by gender, two items were dropped at First class and five at Fifth class. Marking of open-ended items (Fifth class only) produced an average inter-marker agreement of 92%, and resulted in one item being dropped due to poor levels of agreement between markers. An assessment of test targeting (an indication of how appropriate the test difficulty level is for the population in question through a comparison of the distribution of the ability estimates with the item difficulty estimates) was carried out, using Item Response Theory (IRT) estimates. This revealed that the First and Fifth class tests were broadly appropriate for the target populations.

Test Instruments

In this section, the characteristics of the test instruments used in NAER 04 are described. At both First and Fifth class levels, pupils completed one of several versions of a TARA test booklet, and a link test which was common to all participants at that class level. For First class pupils, the link test was the Drumcondra Sentence Reading Test (Form C), while for Fifth class, the General Reading Test was used. Both are described later in this section.

As the previous surveys in 1993 and 1998 only dealt with Fifth class, entirely new instruments had to be developed for First class pupils. However, modifications were also made to Fifth class test materials. Since those used in 1993 and 1998 were developed from a pilot study in 1991, it was necessary to modernise the content to reflect the principles underlying the 1999 curriculum and other recent international research on reading. A proportion of pre-existing testing material was retained to allow comparison between scores in 2004 and in the previous two assessments.

Item Formats

All TARA 93/98 items were presented in a traditional multiple-choice format. Recent international assessments have emphasized the importance of tapping reading skills through a variety of formats. For example, in addition to ordinary multiple-choice, PISA uses four item formats: complex multiple-choice; short response; closed constructed response; and open constructed response (OECD, 2003).

Open response item formats are more sensitive to the interactive constructive nature of reading, and can be used for assessing higher-level interpretative and evaluative skills, particularly when pupils need to draw on their own experiences, and/or when a wide range of interpretation and responses is possible (Campbell et al., 2001). Therefore, about one-third of the new items at Fifth class level are open response items. In contrast, all items on the First class instrument are multiple-choice. The main reason for this was that some First class pupils' writing skills may not accurately reflect their level of reading development, thereby potentially confounding a measure of reading ability.

Fifth Class Instruments

Two instruments were administered at Fifth class –TARA and the General Reading Test (GRT).

Tasks for the Assessment of Reading Achievement

Five TARA test booklets were administered at Fifth class level. Of these, two were replicated exactly from the 1993 and 1998 assessments, one was identical, except for the replacement of the final passage (a poem) with a new text and questions, while two were completely new booklets. Approximately one-third of the new items in the Fifth class TARA booklets are open ended. Open-ended items comprise 18.9% of the total item pool, while 81.1% of items are multiple-choice.

Each booklet contained the three types of reading material discussed in the earlier section, *Reading Content* (i.e., narrative, expository, and documents). Narrative texts composed almost 40% of items, expository texts composed 31% of items, while 28% of items related to documents and 3% to poetry (Table 2.1). Although poetry items composed 9% of items in the 1998 assessment, they were not used in scaling scores. Similarly, poetry

items did not contribute to pupil performance scores in 2004, and, where possible, such items were not included in the booklets. However, in the booklets retained from the 1998 assessment, existing poetry passages were retained (but not scored or analysed) so as to avoid affecting performance on the surrounding passages.

Table 2.1: TARA 04 Fifth class: passages and items, by reading content.

Content	Passages	Items in Booklet	
	N	N	%
Narrative	5	117	37.5
Expository	7	97	31.1
Documents	13	88	28.2
Poetry	*2*	*10*	*3.2*
Total	27	312	100.0

All items in the Fifth class TARA booklets were categorised by reading process (see Inset 2.1 for a description of processes). Pre-existing items, which had been categorised as either Local, Text-wide, or Text-plus, were re-classified using the four reading processes. As can be seen from Table 2.2, most of the items related to the processes of retrieve, infer and interpret, with only 6% examining the evaluate process.

Table 2.2: TARA 04 Fifth class: Number and percentages of items assessing each of the four reading processes

Reading Process	Booklet materials	
	N Items	% Items
Retrieve	108	35.8
Infer	105	34.8
Interpret	71	23.5
Evaluate	18	6.0
Total	302	100

Sample passages for Fifth class from the pilot study (but not included in final test booklets) can be found along with some sample test items in the NAER e-appendix on http://www.erc.ie/naer04/e-appendix.

General Reading Test

As in the 1993 and 1998 assessments, the GRT was included to provide a link for scaling purposes between the five TARA booklets, if required. The GRT comprises items taken from the Comprehension subtest of the Drumcondra English Attainment Test, Levels III (Form B) and IV (Form B) (Educational Research Centre, 1976a, b). It is composed of four passages and 20 multiple-choice items. In 2004, the content replicated that used in 1998, though the formatting was updated.

Table 2.3 shows the intercorrelations of scale scores on each TARA booklet with those of the GRT. Scores on each show a strong correlation with the percentage of GRT items answered correctly, ranging from .76 (Booklet B) to .79 (Booklet A). Table 2.3 also shows the mean percent correct scores on the GRT, split by TARA booklet. Pupils who

completed TARA booklet D obtained the lowest percentage correct score on the GRT (68.9%), while those who completed booklet B obtained the highest percentage correct score (69.9%). The mean scores of pupils who completed the GRT do not vary significantly by TARA booklet completed (F [4, 4080] = .372, p = .829).

Table 2.3: Unweighted correlation with GRT scores, and mean GRT percent correct, by TARA 04 Fifth class booklet

TARA Booklet	r	Mean % correct	SD
A (N=831)	.792	69.4	18.1
B (N=813)	.764	69.9	17.8
C (N=813)	.773	69.1	18.4
D (N=817)	.779	68.9	18.4
E (N=811)	.777	69.6	18.2

First Class Instruments

Two instruments were administered at First class – TARA and the Drumcondra Sentence Reading Test (DSRT).

Tasks for the Assessment of Reading Achievement

As the 1993 and 1998 assessments examined achievement at Fifth class only, all TARA 04 First class material is new. Nine blocks of multiple-choice items, balanced in terms of reading load and item difficulty, were developed. Blocks typically consisted of a passage of text, followed by a number of questions about the text. Two of the nine blocks contained two short passages, giving a total of 11 passages across all TARA First class materials. Each block contained either 10 or 11 items, summing to 95 items across all blocks. Five blocks were narrative, two were expository (informational continuous text) and two were documents (informational non-continuous text). As at Fifth class, items were classified according to the dominant reading processes. However, as First class pupils were not expected to be at a stage of reading where evaluative questions would be developmentally appropriate, all items were either retrieve, infer, or interpret. Table 2.4 shows the breakdown of items by reading content and process.

Table 2.4: TARA 04 First class: Items and passages, by content and processes

Content	N passages	N items	% Items	Process	N Items	% Items
Narrative	5	52	54.7	Retrieve	45	47.4
Expository	2	20	21.1	Infer	28	29.5
Documents	4	23	24.2	Interpret	22	23.2
Total	11	95	100.0	Total	95	100

Blocks were rotated across nine booklets, each of which contained three blocks of items. Block rotation across booklets was designed in such a way that each block appeared once at the start of the booklet, once in the middle, and once as the last block in a booklet (as shown in Table 2.5). Thus, estimates of item difficulty should be unaffected by the position of items in a booklet. The rotation design also ensured that no booklet was composed entirely of literary or information blocks.

Table 2.5: Rotated block design for TARA 04 First class

Booklet	Block/Position		
	1	2	3
1	1L	2IN	3L
2	2IN	3L	4IC
3	3L	4IC	5L
4	4IC	5L	6IN
5	5L	6IN	7L
6	6IN	7L	8IC
7	7L	8IC	9L
8	8IC	9L	1L
9	9L	1L	2IN

Note. L=literary, IN=information-non-continuous, IC=information-continuous in the Block IDs.

Sample passages for First class from the pilot study (but not included in final test booklets) can be found along with some sample test items in the NAER e-appendix on http://www.erc.ie/naer04/e-appendix.

Drumcondra Sentence Reading Test Form C

To facilitate comparability checks between the nine TARA booklets, Level 1 Form C of the Drumcondra Sentence Reading Test (DSRT) was developed as a linking test. It was composed of 20 items from DSRT, Forms A and B. The items covered a range of ability and had a standardised mean percent correct of around 60%. Table 2.6 shows the correlations between pupils' achievement on the DSRT C and on the NAER booklets. Scale scores on each of the nine TARA booklets show a strong correlation with scores on the DSRT, ranging from .76 (Booklet 8) to .82 (Booklet 9). Further, the proportion of DSRT items correctly answered did not vary much by TARA booklet. Irrespective of which TARA booklet was completed, an average of close to 60% of DSRT items were answered correctly. Pupils who completed booklet 9 obtained the lowest percentage of correct responses on the DSRT (58.2%), while those who completed booklet 3 obtained the highest percentage (62.2%). Mean scores of pupils on the DSRT do not vary significantly by TARA booklet completed (F [8, 3826] = .817, p = .588).

Table 2.6: Unweighted correlation with DSRT scores, and mean DSRT percent correct, by TARA 04 First class booklet

Booklet	r	Mean % correct	SD
1 (N=429)	.783	60.2	28.9
2 (N=435)	.786	59.2	27.9
3 (N=420)	.802	62.2	28.2
4 (N=421)	.798	59.5	27.7
5 (N=425)	.771	61.1	28.0
6 (N=423)	.806	60.8	28.7
7 (N=426)	.787	61.6	28.6
8 (N=428)	.756	60.8	28.1
9 (N=428)	.821	58.2	28.2

3. Survey Procedures

By David Millar

The survey procedures used in NAER 2004 are described in four sections. The first deals with the sample design (including target population, method of sampling, and response rates). In the second section, the procedure used to weight the data is outlined. Section three describes the scaling methods used to convert raw scores on the TARA tests to scale scores. Section four explains the procedures used in the analysis of the survey outcomes.

Sample

The sample was selected using a two-stage stratified cluster design. Schools were first selected and then intact classes from these schools were selected. The sampling procedure differed from that of the 1998 survey in a number of respects. First, testing in English took place in First as well as in Fifth class. Second, sampling and testing for NAMA were carried out concurrently at Fourth class. Third, whereas in NAER 1998 pupils were selected at random from across all Fifth classes in selected schools, in NAER 2004 up to two intact classes were selected at each grade level. The latter approach is less efficient than a simple random sample (SRS) within a grade level in a school. This is because of the 'clustering effect', whereby a class, as a sampling unit, contains pupils who tend to be more like each other than like other members of the population. Nonetheless, intact classes were sampled because it is administratively less complex than SRS – an important consideration, given that testing was to occur at three class levels. Furthermore, as with NAER 1993 and 1998, the sample size was large enough to meet agreed criteria for studies such as this.

Target Population

The target population consisted of all First and Fifth class pupils in primary schools in Ireland in May 2004. All pupils in mainstream (ordinary) classes in primary schools were eligible to participate. Pupils attending private schools (1.2% at First class and 1.5% at Fifth class), special schools (0.5% at First class and 1.0% at Fifth class), or special classes in ordinary schools (1.8% at First class and 2.2% at Fifth class) were excluded[1]. Hence, the defined target population included an estimated 96.5% of all pupils in First class and 95.4% of all pupils in Fifth class.

Pupils were also excluded at the second stage of sample selection if, in the view of their teacher or the school principal, they had a learning disability or physical disability that would prevent them from attempting the test. Non-national pupils with very limited proficiency in English were also exempted. It was emphasized to inspectors, principal teachers, and test administrators that exclusions should be rare.

Schools were excluded either because they were listed as not having any pupils at two of the three grade levels (20 schools) or, in the First class only (Junior schools) stratum,

[1] Percentages are estimates extrapolated from data in the 2001/02 Statistical Report (DES, 2003, p. 15).

they were listed as having fewer than five First class pupils (59 schools). These exclusions cover just 2.5% of the total number of schools, and less than half a percent of pupils at each class level (0.3% at First class, and 0.4% of Fifth class).

Method of Sampling

A sample of 116 schools was selected to participate in the NAER 2004 First class survey and 136 schools in the NAER 2004 Fifth class survey. In total, 152 schools were selected – 100 vertical, 36 Senior, and 16 Junior schools. In the 100 vertical schools, it was intended to assess the English reading of pupils in First and Fifth class. In the 36 Senior schools, pupils in Fifth class were to be tested, and in the 16 Junior schools, First class pupils were to be tested. Schools were selected using the DES 2002/03 school database as the sampling frame. The database includes details of all primary schools, including the numbers of male and female pupils enrolled at each grade level.

Prior to sampling, all schools on the database were categorised (stratified) according to size (large = 35 or more pupils in Fifth class; medium = 21 to 34 pupils; and small = fewer than 21 pupils) and number of class levels included. Seven strata were established: large, medium, and small vertical schools (with First, Fourth, and Fifth classes); large, medium, and small Senior schools (with Fourth and Fifth classes, but not First); and Junior schools (with First classes, but not Fourth or Fifth) (Table 3.1). Within these strata, schools were sorted by designated disadvantaged status, area/language of instruction (Gaeltacht, Gaelscoil, Ordinary School), proportion of female pupils, and measure of size. This was done to ensure a representative mix of school types.

Table 3.1: Numbers of schools in the designed sample by stratum

Classes sampled	Small (<21)	Medium (21-34)	Large (35+)	Total
Junior schools	–	16/128	–	16/128
Senior schools	10/99	10/42	16/100	36/241
Vertical schools	24/2003	24/442	52/262	100/2707
All schools				152/3076

Tables 3.2 and 3.3 show the number of schools in each stratum in First and Fifth class, together with the estimated number of eligible pupils in those strata.

Table 3.2: Numbers and percentages of schools in the defined and excluded populations in NAER 2004, estimated numbers and percentages of eligible pupils (First class)

Stratum	N schools in population	% of schools in population	Estimated N of eligible pupils	% of eligible pupils
Junior schools	128	4.1	6882	13.2
Vertical schools (Small <21)	2003	63.5	19593	37.5
Vertical schools (Medium 21-34)	442	14.0	12083	23.1
Vertical schools (Large 35+)	262	8.3	13521	25.9
Subtotal	2835	89.9	52079	99.7
Excluded	79	2.5	135	0.3
Senior schools (no pupils First class)	241	7.6	–	–
Total	3155	100.0	52214	100

Table 3.3: Numbers and percentages of schools in the defined and excluded populations in NAER 2004, estimated numbers and percent of eligible pupils (Fifth class)

Stratum	N schools in population	% of schools in population	Estimated N of eligible pupils	% of eligible pupils
Senior schools (Small <21)	99	3.1	917	1.7
Senior schools (Medium 21-34)	42	1.3	1113	2.0
Senior schools (Large 35+)	100	3.2	6876	12.6
Vertical schools (Small <21)	2003	63.5	18873	34.6
Vertical schools (Medium 21-34)	442	14.0	11999	22.0
Vertical schools (Large 35+)	262	8.3	14541	26.7
Subtotal	2948	93.4	54319	99.6
Excluded	79	2.5	179	0.4
Junior schools (no pupils Fifth class)	128	4.1	23*	0.0
Total	3155	100.0	54521	100.0

*Rather than exclude them from the sampling frame, five schools that had no pupils in Fourth class but had pupils in First and Fifth were included in the Junior schools stratum.

A two-stage stratified cluster design was used to select pupils. During the first stage, the primary sampling units (schools) were allocated to strata as described above. Then, within strata, schools were selected with a probability proportional to size. In the case of Senior and vertical schools, the measure of size (MOS) was the number of pupils listed (in the DES database) as being in Fifth class. In the case of Junior schools, the MOS was the number listed as being in First class. During the second stage of sampling, intact classes within schools were selected. A maximum of two classes at each grade level were selected (in small and medium schools this generally meant all classes). Where there were more than two classes at a grade level, staff at the ERC selected two classes at random. With the exception of those whose teachers or principals deemed them to be unable to attempt the test (according to guidelines provided by the ERC) all pupils in selected classes were expected to participate in the assessment.

Sample Size

The size of the sample was set at 116 schools at First class and 136 schools at Fifth class, fewer than the 150 schools selected at Fifth class for NAER 1998. Whereas 10, 20, or 35 pupils (depending on school size) were selected at random across all pupils at the grade level in 1998, up to two classes were selected in 2004. Several factors were considered in deciding on the number of schools to be selected, including the following:

- **Clustering between schools**: an estimate of the extent of the differences in English reading achievement between schools (called rho) was obtained using data from earlier national assessments of English reading and from samples used for test standardisation.
- **Cluster size**: the average number of pupils likely to be enrolled in First and Fifth class in each stratum was estimated using the DES schools database.
- **Probable response rate within schools**: An estimate of 93.5 percent (Cosgrove et al., 2000, p.25) was obtained from NAER 1998.
- **The need to achieve an effective sample size of at least 400 pupils as in NAER 1993 and NAER 1998**: The sample was designed so that it should provide at least the same information as a sample of 400 pupils if those pupils had been selected at random across all primary schools.

Tables 3.4 and 3.5 show the number of schools and the estimated number of pupils in the designed samples for First and Fifth class. Pupil numbers per school were estimated using the mean number of pupils per school in the grade level in the sampling frame.

Table 3.4: Numbers and percentages of schools and estimated numbers and percentages of pupils in the designed sample, by stratum (First class)

Stratum	% of eligible pupils (pop)	N schools in sample	N pupils/ school in sample	N pupils in sample	% of pupils in sample
Junior schools	13.2	16	54 per school	864	19.4
Vertical schools (Small <21)	37.5	24	10 per school	240	5.4
Vertical schools (Medium 21-34)	23.1	24	27 per school	648	14.5
Vertical schools (Large 35+)	25.9	52	52 per school	2704	60.7
Total	99.7	116	–	4456	100.0
Excluded	0.3	0	–	–	–

Table 3.5: Numbers and percentages of schools and estimated numbers and percentages of pupils in the designed sample, by stratum (Fifth class)

Stratum	% of eligible pupils (pop)	N schools in sample	N pupils/ school in sample	N pupils in sample	% of pupils in sample
Senior schools (Small <21)	1.7	10	9 per school	90	1.7
Senior schools (Medium 21-34)	2.0	10	27 per school	270	5.2
Senior schools (Large 35+)	12.6	16	69 per school	1104	21.1
Vertical schools (Small <21)	34.6	24	9 per school	216	4.1
Vertical schools (Medium 21-34)	22.0	24	27 per school	648	12.4
Vertical schools (Large 35+)	26.7	52	56 per school	2912	55.6
Total	99.6	136	–	5240	100.0
Excluded	0.4	0	–	–	–

Achieved Sample

First Class

One hundred and nine of the 116 selected schools agreed to participate in the survey (94.0%). After the inclusion of five replacements[2], the number of participating schools was 114. Table 3.6 shows the number of pupils in selected classes within schools (based on figures returned to the ERC from participating schools) and the number of pupils from these classes who completed the reading test. Only 37 pupils (0.9% of 4143) were exempted from taking the TARA test at First class. The discrepancy between the numbers of pupils in selected classes in participating schools (4143) and the number of completed test booklets (3842) can mainly be attributed to absenteeism on the day on which the test was administered.

[2] Replacement schools are selected along with the main school sample and are similar to the schools they replace in terms of the explicit and implicit stratification variables (e.g. school size, gender mix, disadvantaged status).

Table 3.6: Number of schools in the achieved sample, number of pupils in selected classes, and number of pupils in the achieved sample, by stratum (First class)

Stratum	N schools in achieved sample	N pupils in selected classes	N pupils tested
Junior schools	16	769	701
Vertical schools (Small <21)	24	281	260
Vertical schools (Medium 21-34)	24	661	605
Vertical schools (Large 35+)	50	2432	2276
Total	114	4143	3842

Table 3.7 shows the response rates for the various assessment instruments.

Table 3.7: Response rates for the assessment instruments (First class)

Instrument	N received	N in achieved sample	% Completed	
			Of 114 schools taking part	Of 116 schools initially selected*
School Questionnaire	113	114	99.1	97.4
Test Booklet	3842	4143	92.7	91.1
Teacher Questionnaire	178	181	98.3	96.6
Parent Questionnaire	3799	4143	91.7	90.1
Pupil Rating Form	4054	4143	97.9	96.2
Pupil Questionnaire	3935	4143	95.0	93.3

*Apart from the figure for the School Questionnaire, these figures are estimates based on the percentage response for the 114 schools multiplied by (114/116).

Fifth Class

One hundred and thirty of the 136 selected schools agreed to participate in the survey (95.6%). Four replacement schools were included. One school that had originally agreed to take part in the study failed to return data. The final number of participating schools was 133. Table 3.8 shows the number of pupils in selected classes within schools and the number of pupils from these classes who completed the reading test. Only 42 pupils (0.9% of 4425) were exempted from taking the TARA test at Fifth class. The discrepancy between the numbers of pupils in selected classes in participating schools (4425) and the number of completed test booklets (4090) can mainly be attributed to absenteeism on the day on which the test was administered.

Table 3.8: Number of schools in the achieved sample, number of pupils in selected classes, and number of pupils in the achieved sample, by stratum (Fifth class)

Stratum	N schools in achieved sample	N pupils in selected classes	N pupils tested
Senior schools (Small <21)	9	122	114
Senior schools (Medium 21-34)	10	258	234
Senior schools (Large 35+)	16	811	740
Vertical schools (Small <21)	24	311	293
Vertical schools (Medium 21-34)	24	613	576
Vertical schools (Large 35+)	50	2310	2133
Total	133	4425	4090

Table 3.9 shows the response rates for the various assessment instruments.

Table 3.9: Response rates for the assessment instruments (Fifth class)

Instrument	N received	N in achieved sample	% Completed	
			Of 133 schools taking part	Of 136 schools initially selected*
School Questionnaire	131	133	98.5	96.3
Test Booklet	4090	4425	92.4	90.4
Teacher Questionnaire	196	199	98.5	96.3
Parent Questionnaire	4149	4425	93.8	91.7
Pupil Rating Form	4401	4425	99.5	97.3
Pupil Questionnaire	4268	4425	96.5	94.3

*Apart from the figure for the School Questionnaire, these figures are estimates based on the percentage response for the 133 schools multiplied by (133/136).

Test Administration

Administration of tests and questionnaires was carried out by classroom teachers, and overseen by Inspectors from the DES. Inspectors were briefed on the aims and procedures of the assessment in three regional briefings, and provided with test materials about one week prior to the assessment (to ensure test security, test materials were not sent directly to schools). Inspectors contacted each participating school by telephone to confirm the testing date and other arrangements, and made one visit to each school where they distributed the tests; oversaw the assessment, assisting where appropriate; and collected all assessment materials for return to the ERC.

Shortly before the administration, teachers were sent a booklet containing information on aspects of the survey aims, design and administration, including a 'script' for administering the tests and questionnaires. School principals were also sent an information booklet detailing the aims of the survey and providing instructions for distributing and collecting the questionnaire materials. Teachers administered the Pupil Questionnaire prior to the Inspector's visit. School principals (or a nominee of the principal) arranged for the other questionnaires to be dispatched, completed and returned prior to the Inspector's visit. Despite the complexity of the tasks to be completed by school personnel, there were very few difficulties in the organisation of the test administration.

Sampling Weights

Sampling weights were calculated prior to the analysis of the test data. Weights are necessary since schools and classes (and therefore pupils) were sampled disproportionately with regard to their overall presence in the population. Weighting of data ensures that the contributions of certain groups of pupils (e.g. pupils attending large schools) are not over- or under-represented in the data and therefore do not bias findings. To prevent such bias, each pupil's score is multiplied by the inverse of the pupil's probability of being selected for the survey. The pupils' probability of selection is the product of the probability of the school being selected multiplied by the probability of the particular class being selected within a selected school

The weighting process had two further features. The first was a correction to account for non-response at each level (e.g., a school declining to take part in the study or a pupil being absent on the day of testing). This is simply the number of schools or pupils selected divided by the number of schools, or pupils, for which data were returned. The second involved multiplying the weights calculated in the manner described above by the overall sampling fraction (the number of pupils in the sample divided by the number of pupils in the population). This step means that the number of cases in the weighted data set is the same as the number in the sample and helps to avoid confusion between sample estimates and total population parameters that are reported elsewhere in this report.

The basic procedure for calculation of weights was the same for both First and Fifth class samples. The final weights for the NAER 2004 survey were calculated as follows:

Sample weight = n/N (sbw x **scnr** x **cbw** x **pcnr**)

where:

n = the number of pupils in the sample,

N = the number of pupils in the population,

sbw = the school base weight or the inverse of the probability of the school being selected,

scnr = the correction for non-response at the school level,

cbw = the class base weight or the inverse of the probability of the class being selected,

pcnr = the correction for non-response at the pupil level.

After weighting it was discovered that there was a bias in terms of the weighted number of male pupils (i.e., the weighted proportion of males in the data set was greater than the proportion of male pupils in the population)[3]. Therefore, a correction factor (the actual proportion of male and female pupils within a stratum in the population divided by the weighted proportion of male and female pupils in the stratum in the sample) was applied within each stratum.

Scaling of Test Data

First Class

First class test data from the nine booklets were scaled using two methods: Equipercentile equating and IRT. Equipercentile equating is a classical test theory methodology that is used to equate different versions of the same test. For example, it was used to equate forms A and B of the Drumcondra Primary Reading Test. A second scale was created using IRT which provides more adaptable and effective methods of test development, analysis, and scaling than those derived from classical test theory. It provides a difficulty estimate for each of the test items and an ability estimate for each of the pupils. The provision in IRT for treating items, or blocks of items, as interchangeable units in test construction is of particular value. The modular nature of the materials means that fresh items, or blocks of items, can be added gradually over the years as the curriculum evolves, thereby protecting investment in development, while allowing for full comparability of pupil performance. This is more problematic with equipercentile scaling.

[3] This bias was a result of the oversampling of male pupils rather than a function of the weighting.

The use of the two methods helps to test for problems in the scaling that might otherwise be overlooked. Both scales were set to have a mean of 250 and a standard deviation of 50. Both methods produce highly similar results (correlating r=.98). The equipercentile scale was used in analyses reported in Chapters 5 to 8, in which variables associated with performance in reading were examined. The IRT scale, which will aid test development and the comparison of scores between 2004 and future surveys, was used in Chapter 4.

In addition to the total IRT scale, based on all items, separate IRT scales for the three domains (documents, expository, and narrative) were created. The domain scales were each scaled to a mean of 250 and a standard deviation of 50.

Fifth Class

Two overall IRT test scales were developed for Fifth class data. The first followed the approach taken in 1993 and 1998, where the overall achievement scale score (SS) for each pupil was computed as the weighted average of the score for each of the three domains. This was achieved using the formula:

Overall SS = (.3857 * Narrative SS) + (.3174 * Expository SS) + (.2969 * Documents SS)

The weightings (.3857, .3174, .2969) reflect the proportion of the total number of test items that comprised each domain. This weighting differs from that used in 1993 and 1998 (.4, .4, .2) and reflects a change in the relative proportion of items from each domain. The resulting scale was used in the analyses reported in Chapters 5 to 8.

A second IRT scale was developed to explore trends in performance across years. This scale was created through combining TARA and GRT data from 1993, 1998, and 2004 for all Fifth class pupils across all items. This second scale was required as no direct comparison of results with the results of previous surveys was possible since two of the five earlier test forms were replaced with two new ones in the 2004 survey. Rather than a weighted composite of the three domain scale scores (as in previous surveys), it was decided to create pupil scores based on all items. This was justifiable since the three domains effectively measure just one underlying factor of reading. The decision also reflects recent trends in the scaling of test data in international studies such as PISA. The second 'comparison' scale correlates well with the composite scales used to report results in 1993 and 1998 (r=.97 in each case) and with the composite scale for 2004, described above (again .97).

In addition, scales for the three domains were created from the combined 1993, 1998 and 2004 data. All IRT scales were scaled to a mean of 250 and a standard deviation of 50 for NAER 1998, chosen as the comparison year. The means and standard deviations for other years may be expected to vary from these. Therefore, the degree to which means for 2004 vary from 250 may be indicative of differences in achievement (allowing for differences which may result from sampling error). The second 'comparison' IRT scale and associated domain scales are used in Chapter 4 and Chapter 11, where data from 1998 and 2004 are compared.

Procedures for Analysing the Data

Throughout this report, all means and percentages that are related to achievement data are accompanied by their standard errors. A standard error is a measure of the extent to which a sample estimate (e.g. mean or percentage) is likely to differ from the true (unknown) value for a population on a given measure. Given the complex clustered sampling technique used in the survey, it was necessary to calculate standard errors using the specialised statistical package WesVar (Westat, 2000). WesVar uses a jackknife re-sampling technique to generate a standard error for each estimate, taking account of the design of the sample. The result is that standard errors around population estimates are larger than they would be if estimated using formulae based on SRS assumptions.

A 95% confidence interval for a statistic may be constructed consisting of the region from 1.96 standard errors below the statistic to 1.96 standard errors above it, so that, if the sampling procedure were repeated a large number of times, and the sample statistic re-computed on each occasion, the confidence interval would be expected to contain the population value 95 times out of 100. For example, for a sample mean of 250 and a standard error of 2, it is possible to say that the population mean would lie within two standard errors of the sample mean (that is, between 246 and 254) 95 times out of 100.

Where a number of different mean scores are compared, such as the performance of pupils in boys, girls, and mixed-sex schools, the probability of a Type 1 error (where a difference is erroneously found to be statistically significant) is controlled for using the Dunn-Bonferroni procedure (Dunn, 1961). This is achieved by dividing the desired significance level (e.g., .05) by the number of comparisons that are to be made and applying the appropriate critical value (t) for this adjusted alpha.

Another statistic which features regularly in this report and which is also affected by the complexity of the sample is the simple correlation between two variables. While the actual values of the correlations between variables in the sample remain unaffected, their significance levels need to be adjusted for the sample design. This was achieved by carrying out a series of X on Y regression analyses in WesVar between the variables of interest, and focussing on the significance level of the *t* statistic for the parameter estimate of the independent variable. The significance level of the parameter is in effect the significance level of the correlation between the two variables, which in a regression analysis containing two variables is the square root of R^2 for the regression equation.

The *t* statistic of the parameter estimate is obtained by dividing the parameter estimate (the β coefficient) by its standard error. The standard error that WesVar generates for the parameter estimate is larger than the standard error derived from a regression analysis carried out under the assumptions of a simple random sample, because it uses the replication method to take sampling complexity into account. Therefore, the *t* value for the parameter is smaller and the statistical significance of the parameter, and of the correlation, is reduced. The significance levels of correlation coefficients in this report were calculated using this methodology.

How to Interpret the Analyses in This Report

Most of this report is concerned with describing pupil achievement in reading, with reference to relevant contextual variables, or with reporting descriptive data, such as the percentage of teachers who are female. Two main types of tables are used to link context variables with achievement: one showing multiple comparisons of means, and the other

showing correlations. Correlations are used for continuous variables (e.g., examining the link between attendance rates and achievement). Multiple comparison tables are used for categorical variables, whereby multiple mean achievement scores (e.g., mean scores for those whose mother is employed, unemployed, or a homemaker) are compared to see if they differ significantly from each other. This section explains how to interpret both correlations and multiple comparison tables, and describes the treatment of missing data. First, however, the NAER e-appendix, which provides additional statistical information to that presented here, is described.

NAER 2004 E-appendix

Although the tables presented in the report contain considerable detail, some readers may wish to consult additional information presented in the NAER e-appendix (available on http://www.erc.ie/naer04/e-appendix). There are four main types of additional information presented in the e-appendix. Firstly, the multiple comparisons shown in the present report do not contain information on missing data, on Bonferroni Confidence Intervals, or on the standard errors of differences between means; such data are available only in the e-appendix. Secondly, the standard errors associated with descriptive data (e.g., the mean percentage of pupils covered by the medical card scheme) are provided only in the e-appendix. Thirdly, relationships between achievement and a small number of variables have not been presented in tabular format in the report, but are available in the e-appendix. Finally, there are a small number of instances where responses to only a selection of items are presented in the main NAER report. For example, although principals were presented with a list of 23 factors and asked to rate the extent to which each was an obstacle to the teaching of reading in their school, only those rated as the most serious obstacles are shown in this report. The e-appendix contains details of ratings for all factors.

The e-appendix follows a similar layout to the main report. Thus, the tables from Chapter 6, for example, can be found in 'Chapter 6: Tables'. Tables are presented in the same sequence as in the equivalent chapter in the main report. Additional tables (data referred to only in text in the main report) are presented at the end of each chapter, in the order in which they are referenced in the main report (e.g., Table 6.A1, Table 6.A2, etc).

Inset 3.1: Interpreting Correlation Coefficients

In several chapters, correlations between pairs of variables are given. The value of a correlation can range from –1 to +1. A negative correlation (e.g., r = –.24) means that as one variable increases in magnitude, the other decreases; a positive correlation (e.g., +.24) means that the values of both variables increase or decrease together. A value of 0 indicates that there is no association between two variables. The closer that *r* is to ±1, the stronger the relationship. In this report, the magnitudes of correlations are assigned qualitative labels to assist in interpretation:

- weak <± .1
- weak to moderate ± .1 to .24
- moderate ±.25 to .39
- moderate to strong ± .4 to .55
- strong ±.56 or greater

Inset 3.2: Interpreting Tables of Differences in Mean Achievement

Throughout this report, you will see tables showing differences between the mean achievement scores of various groups of pupils. These tables are summary multiple comparison tables. A more detailed version of each (including missing data) is available on http://www.erc.ie/naer04/e-appendix.

In the tables, there are three columns of data (**%, Mean** and **SE**) for each grade level. The **%** columns show the percentages of pupils in a particular group, based on the numbers of pupils for whom *both* achievement test data and data on a given item were available, while **Mean** shows the average score for pupils in each of these groups. In the example below, 3.6% of Fifth class pupils for whom data were available had attended an Early Start pre-school programme, and these pupils attain an average score of 229.9.

The final columns – **SE** – show standard errors corresponding to the adjacent mean scores (e.g., the standard error of the mean score of Fifth class Early Start attendees is 6.5). The SE of a mean score is an estimate of the extent to which the score may be expected to vary about the 'true' mean, and, as such, is a measure of the accuracy of mean scores derived from a sample.

EXAMPLE: Mean reading achievement scores, and pre-school attendance, by grade level

	1st class (N=3609)			5th class (N = 3906)		
	%	Mean	SE	%	Mean	SE
Early start (RefGroup)	4.5	227.6	4.55	3.6	229.9	6.5
Other pre-school/playgroup	82.7	**253.5**	2.25	75.6	**255.8**	2.5
Neither	12.8	**249.9**	6.43	20.8	240.9	4.5

Early Start is flagged as the reference group (**RefGroup**), meaning that the performance of pupils in this group has been compared to the performance of pupils in each of the other groups. Where the performance of pupils in the reference group is significantly different from that of pupils in another group, mean scores for the other group are flagged using bold font. Thus, in the example above, Fifth class Early Start attendees achieve significantly lower mean scores than pupils who attended another form of pre-school or playgroup, but do not differ significantly from pupils who did not attend any pre-school or playgroup.

Missing Data

Throughout most of this report, information on pupil performance has been presented only for those for whom data are available. For example, in Inset 3.1, achievement data are presented only for pupils for whom information about pre-school attendance was supplied. Although not shown in the summary multiple comparison tables in the report, information on missing cases is presented in the more detailed multiple comparison tables, available at http://www.erc.ie/naer04/e-appendix. Data presented include percentages of missing cases for each explanatory variable, and, for each variable, the mean reading achievement score of each missing group. Moreover, pupils for whom data are missing are included as a comparison group (using the Dunn-Bonferroni procedure) when examining the significance

of mean score differences shown in the summary tables in the report. At the end of Chapters 5 and 6 the achievements of pupils for whom certain instruments (e.g., a Parent Questionnaire) are missing are compared with those for whom the instrument is available.

4. Reading Achievement Outcomes

In this chapter, which is composed of four sections, some of the main findings relating to reading achievement are described. Firstly, data for all scales from the 2004 assessment are presented, including analyses by content (narrative, expository and documents) and by reading process (retrieve, infer, interpret and evaluate). Next, the relationship between assessed pupil achievement and the pupil achievement ratings supplied by teachers is described. In the third section, teacher ratings of pupils for whom test data are available are compared with the ratings for pupils for whom assessment data are unavailable. In the fourth section, achievement in 2004 is compared with achievement in 1998 (for Fifth class pupils only).

Achievement in 2004

Table 4.1 shows the percentage of items administered in the 2004 assessment that were answered correctly, by content. On average, 64% of items were answered correctly at First class, compared to 61% at Fifth class. At First class, an average of 63% of narrative and document items, and 70% of expository items were answered correctly. At Fifth class, an average of 59% of narrative items were answered correctly, compared to 62% of expository and 65% of document items.

Table 4.1: Percentages of items answered correctly, by reading content

	1st class			5th class		
	N pupils	% correct	N items	N pupils	% correct	N items[1]
Narrative	3842	63.2	52	4090	58.9	113
Expository	2550	69.7	20	4090	61.8	93
Documents	2559	62.6	23	4090	65.2	87

Table 4.2 shows the percentages of items, categorised by reading process, that were answered correctly. At First class, items relating to the retrieve process had the highest percentage of items answered correctly (69%) while items relating to the interpret process had the lowest percentage (57%). Items relating to the retrieve process also had the highest percentage of items answered correctly at Fifth class (66%), while, at 55%, items relating to the evaluate process had the lowest percentage of correct responses.

Table 4.2: Percentages of items answered correctly, by reading process

	1st class			5th class		
	N pupils	% correct	N items	N pupils	% correct	N items
Retrieve	3842	68.5	45	4090	66.4	107
Infer	3842	64.0	29	4090	60.7	101
Interpret	3842	56.6	21	4090	57.7	69
Evaluate	–	–	–	3248	55.2	16

[1] A small number of items were dropped from analyses due to typos or to poor psychometric properties. Thus, the Ns shown differ slightly from those in Table 2.1 (which refers to administered, rather than scaled, items).

Scale Scores

As outlined in 'Scaling of Test Data' in Chapter 3, two sets of scores were developed at each grade level. One set was designed for analysis within the NAER 04 dataset, while a second was designed to facilitate comparison between the outcomes of NAER 04 and assessments in other years. As this is the first time that First class pupils have been included in NAER, all comparison scales at this level have been set to a mean of 250 and a standard deviation of 50 (Table 4.3). However, the comparison scale for Fifth class takes 1998 as the reference year (i.e., when a mean of 250 and the standard deviation of 50 were set). Therefore, Fifth class data in Table 4.3 deviate slightly from a 250:50 scale.

Table 4.3: Mean scale scores, standard deviations and standard errors for subscales and overall, 2004

	1st class				5th class			
	N pupils	Mean	SD	SE	N pupils	Mean	SD	SE
Narrative	3842	250.0	50.0	2.40	4090	250.1	48.5	1.95
Expository	2550	250.0	50.0	3.12	4090	250.3	50.0	2.35
Documents	2559	250.0	50.0	2.22	4090	254.8	54.4	2.30
Overall	3842	250.0	50.0	2.51	4090	251.2	49.2	2.23

Teacher Ratings and Test Achievement (2004)

For each pupil in their class, teachers were asked to provide ratings of current functioning on a number of factors related to reading, including proficiency in oral language, reading and writing, and an estimate of how the pupil would score on a standardised test of English reading. They were also asked how they expected the pupil to cope with the reading and writing tasks of post-primary school and of everyday society. In this section, these teacher ratings are compared with the results of the assessment.

One quarter of First and Fifth class pupils were rated by their teacher as having an advanced standard of English reading, while between 41% and 48% (at First and Fifth, respectively) were rated as proficient (Table 4.4). At each grade level, pupils rated as advanced have significantly higher mean scores than pupils rated as proficient, basic, or weak. Indeed, the difference between those rated as advanced and those rated as weak exceeds 100 points[2] at each grade level.

Table 4.4: Teachers' ratings of pupils' English reading and mean reading achievement

	1st class (N=3789)			5th class (N=4046)		
	%	Mean	SE	%	Mean	SE
Advanced (RefGroup)	25.4	292.0	3.18	24.8	296.9	2.93
Proficient	41.1	**256.2**	4.26	47.9	**251.3**	2.13
Basic	22.5	**220.9**	3.19	21.1	**216.8**	2.61
Weak	11.0	**190.1**	2.13	6.3	**186.7**	4.49

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

[2] Some readers may wish to express point differences in terms of standard deviation units. The standard deviation for overall TARA scales is 50 at First and 49.2 at Fifth class. Thus, a difference in excess of 100 points is in excess of two standard deviations.

The relationships between achievement scores and teachers' ratings of pupils' oral language (both comprehension and speaking), English writing, and spelling were very similar to those shown in Table 4.4. Consequently, these data are not presented here, but are available in the NAER e-appendix on http://www.erc.ie/naer04/e-appendix (Tables 4.A1 to A4). Instead, a summary measure was developed, using these variables and data on pupils' English reading proficiency. A principal components analysis was conducted at each grade level, and factor scores were generated (with a weighted mean of 0 and a weighted standard deviation of 1). One factor emerged at both grades. There was a strong correlation between the factor representing teacher ratings of various aspects of English and pupil achievement (.69 for Fifth class and .64 for First class pupils) (Table 4.5). Details of factor components and loadings are available in Tables 4.A5 and A6.

Table 4.5: Correlations between achievement scores and teacher ratings of aspects of pupils' oral language, English reading and writing, and spelling

	N	r	t	p
1st class	3772	**.638**	20.784	<.001
5th class	4018	**.691**	31.669	<.001

Significant correlations in bold. For help in interpreting table see page 36.

A strong relationship is also in evidence between actual achievement scores and teachers' ratings of how each pupil would perform on a standardised test of reading at both grade levels (Table 4.6). For example, Fifth class pupils rated as likely to obtain a score above the 90th percentile achieved a mean score of 315.7, 66 points higher than that of pupils whom teachers estimated would score between the 51st and 75th percentiles, and almost 140 points higher than the mean of pupils whom teachers estimated would score at or below the 10th percentile. Similarly, First class pupils rated as likely to be above the 90th percentile achieved the highest mean score, significantly higher than pupils rated as likely to be in any other category.

Table 4.6: Teachers' estimates of pupil performance on standardised reading tests and mean reading achievement

	1st class (N=3769)			5th class (N=3998)		
	%	Mean	SE	%	Mean	SE
91st - 99th (RefGroup)	13.7	301.3	3.55	10.2	315.7	3.15
76th - 90th	24.0	**278.8**	3.93	23.0	**281.7**	2.32
51st - 75th	28.7	**253.1**	2.59	31.8	**249.5**	1.94
26th - 50th	19.2	**217.7**	2.71	20.5	**223.7**	2.04
11th - 25th	8.9	**195.6**	1.73	10.1	**209.9**	11.58
1st - 10th	5.6	**186.3**	1.93	4.3	**176.1**	3.42

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

A similar relationship is in evidence between pupil achievement and teachers' ratings of pupils' general academic ability (Table 4.7). At each grade level, pupils rated by teachers as having very good academic ability obtained a mean achievement score that is significantly higher than the mean scores of those rated less favourably by their teachers. For example, pupils rated as having very good general academic ability obtained a mean score that is 97 points higher than the mean scores of pupils rated as poor at First class, and just over 110 points higher at Fifth class.

Table 4.7: Teachers' ratings of pupils' general academic ability and mean reading achievement

	1st class (N=3789)			5th class (N=3998)		
	%	Mean	SE	%	Mean	SE
Very good (RefGroup)	34.0	285.7	3.01	31.1	288.7	2.57
Good	25.4	**253.7**	4.04	31.3	**255.8**	2.13
Average	25.9	**230.3**	4.94	21.9	**230.5**	2.48
Fair	10.3	**200.7**	3.69	11.1	**204.8**	3.41
Poor	4.5	**189.0**	2.53	4.5	**178.5**	3.67

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

The grade levels at which teachers placed pupils in terms of their English reading were also closely related to achievement scores. At each grade level, pupils who were rated as having a reading standard above their grade level achieved mean scores well above the test means (250 or 251) (Table 4.8). For example, Fifth class pupils with a rated reading level of post-primary school achieved a mean score of 316.1, significantly higher than the mean scores of pupils in all other categories. Similarly, First class pupils rated as reading at above Second class level obtained a mean achievement score significantly higher than the scores of pupils who received other ratings.

Table 4.8: Pupils' teacher-rated standard of English reading and mean reading achievement

	1st class (N=3758)				5th class (N=4029)		
	%	Mean	SE		%	Mean	SE
Above 2nd Class (Ref Group)	6.5	303.2	4.81	Post-primary (RefGroup)	6.1	316.1	3.34
2nd Class	21.9	**287.7**	3.00	6th class	16.8	**291.4**	4.19
1st Class	57.2	**244.6**	2.74	5th class	49.7	**254.1**	1.85
Senior Infants	14.1	**192.8**	3.67	4th class	18.8	**217.1**	2.58
Junior Infants	0.0	–	–	3rd class / lower	8.6	**186.3**	3.69

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Teachers of First class pupils were asked to indicate how well they thought pupils would cope with the reading tasks of Third class, while those teaching Fifth classes were asked how well they thought pupils would cope with the reading tasks of post-primary school and of everyday society. Less than 3% of pupils at each grade level were not expected to be able to cope with the reading tasks at the higher grade (Tables 4.9 and 4.10). Pupils whom teachers expected to cope very well have significantly higher mean scores than pupils expected to cope adequately, to need assistance, or not to be able to cope. First class pupils whom teachers rated as being well able to cope with the reading tasks of Third class achieve a mean score that is significantly higher than that of pupils assigned other ratings by their teachers (with a difference of 100 points between those who would cope very well and those who would not cope) (Table 4.9).

Table 4.9: Teachers' ratings of how pupils will cope with reading tasks of Third class /post-primary school, and mean achievement scores

	1st class (N=3787)			5th class (N=4054)		
	%	Mean	SE	%	Mean	SE
Cope very well (RefGroup)	38.9	283.9	3.43	42.4	283.9	2.14
Cope adequately	38.5	**244.0**	4.00	39.3	**240.5**	3.04
Needs assistance	20.3	**204.7**	3.17	15.9	**203.0**	3.64
Not cope	2.3	**183.9**	2.80	2.4	**174.2**	5.48

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Most Fifth class pupils were expected to be able to cope with the everyday demands of society in reading (Table 4.10). Those who were expected to cope very well obtained a significantly higher mean score than those expected to cope adequately, to need assistance, or not to cope at all.

Table 4.10: Teachers' ratings of how pupils will be able to cope with everyday demands of society in reading, and mean achievement scores (Fifth class)

(N=4054)	%	Mean	SE
Cope very well (RefGroup)	47.6	280.2	2.00
Cope adequately	42.1	**234.1**	3.16
Needs assistance	9.2	**191.9**	2.92
Not cope	1.1	**162.3**	6.72

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Teacher Ratings for Pupils not Tested

By definition, achievement test data are unavailable for those who did not take the test. However, it is possible to use teacher ratings as an alternative measure of pupil achievement, to compare those who participated in the assessment with those for whom no test data are available (mainly due to their absence on the day of testing). Doing so reveals that those who sat the test typically received more positive achievement ratings from their teachers than pupils who did not take the test. For example, 21% of First class pupils for whom test data are missing were rated as weak readers, compared to 11% of those who sat the achievement test (Table 4.11). At Fifth class, pupils who did not take the test were almost three times as likely as those who did so to be rated as weak readers.

Table 4.11: Teachers' ratings of pupils' English reading, by availability/unavailability of TARA data

	1st class		5th class	
	Test taken (N=3789) %	Test not taken (N=268) %	Test taken (N=4046) %	Test not taken (N=319) %
Advanced	25.4	16.4	24.8	21.9
Proficient	41.1	37.7	47.9	33.2
Basic	22.5	25.4	21.1	25.1
Weak	11.0	20.5	6.3	19.7

Weighted data are only available for pupils who have taken the TARA test. Therefore, data for test not taken groups are unweighted.

A similar pattern emerges if teachers' estimates of where pupils would be placed on a standardised test of English reading are examined. At both grade levels, over three times as many pupils who did not complete the achievement test as pupils who had completed the test were rated as being at or below the tenth percentile (Table 4.12).

Table 4.12: Teacher estimates of pupil performance on a standardised reading test, by availability/unavailability of TARA data

Expected percentile rank	1st class		5th class	
	Test taken (N=3769) %	Test not taken (N=265) %	Test taken (N=3998) %	Test not taken (N=312) %
91st – 99th	13.7	6.8	10.2	8.3
76th – 90th	24.0	16.6	23.0	19.6
51st – 75th	28.7	23.8	31.8	24.4
26th – 50th	19.2	23.8	20.5	15.7
11th – 25th	8.9	11.7	10.1	14.7
1st – 10th	5.6	17.4	4.3	17.3

Weighted data are only available for pupils who have taken the TARA test. Therefore, data for test not taken groups are unweighted.

Fourteen percent of First class pupils who had completed the achievement test were rated as being below First class in terms of English reading standards, compared to 28% of those who had not taken the test (Table 4.13). At Fifth class, 27% of those who had completed the achievement test were rated as below Fifth class standards in terms of English reading, a percentage that rose to 44% when pupils who had not completed the test were considered.

Table 4.13: Teacher estimates of the grade level at which pupils were reading, by availability/unavailability of TARA data

	1st class			5th class	
	Test taken (N=3758) %	Test not taken (N=265) %		Test taken (N=4029) %	Test not taken (N=319) %
Above 2nd class	6.5	2.3	Post-primary	6.1	6.0
2nd class	21.9	14.0	6th class	16.8	12.2
1st class	57.2	55.5	5th class	49.7	38.2
Senior Infants	14.4	19.6	4th class	18.8	20.4
Junior Infants	0.0	8.7	3rd class/below	8.6	23.2

Weighted data are only available for pupils who have taken the TARA test. Therefore, data for test not taken groups are unweighted.

Comparing Achievement in 1998 and 2004

As First class was not assessed in the 1998 assessment, comparison data are available only for Fifth class. Table 4.14 shows mean scale scores for Fifth class pupils in 1998 and 2004, overall and by subscale. The scores are similar for each subscale and for the total scale, and there are no significant differences in the mean achievement scores between 1998 and 2004. However, when the subscale scores were analysed at key percentile points, a significant difference emerged for the documents subscale. Scores at the 50th, 75th, and 90th percentiles were significantly higher in 2004 than in 1998 (Table 4.15). Therefore, to

score at the 50th, 75th, or 90th percentile on the documents subscale in 2004 required a higher reading achievement score than scoring at the corresponding percentile in 1998. However, the higher scores at these key points were not large enough to raise mean performance on the documents subscale (although the mean score was almost 5 points higher in 2004), or on the overall scale. Details of these differences are available in Tables 4.A7 to A9.

Table 4.14: Mean Fifth class scale scores in 1998 and 2004, by subscales and overall

		N	Mean	SE
Narrative	1998 (RefGroup)	3886	250.0	1.72
	2004	4090	250.1	1.95
Expository	1998 (RefGroup)	3886	250.0	1.68
	2004	4090	250.3	2.35
Documents	1998 (RefGroup)	3886	250.0	1.46
	2004	4090	254.8	2.30
Overall	1998 (RefGroup)	3886	250.0	1.84
	2004	4090	251.2	2.23

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Table 4.15: Mean (SE) Fifth class scale scores at key percentile points in 1998 and 2004, by subscales and overall

		10th	25th	50th	75th	90th
Narrative	1998 (RefGroup)	177.7 (3.12)	215.6 (2.34)	254.7 (2.68)	286.3 (1.57)	312.0 (1.66)
	2004	184.6 (2.60)	217.7 (3.26)	252.2 (2.54)	284.3 (2.23)	314.1 (2.16)
Expository	1998 (RefGroup)	183.5 (1.83)	214.5 (1.91)	250.6 (2.06)	286.3 (1.91)	314.4 (2.55)
	2004	183.5 (3.12)	214.3 (2.91)	251.4 (2.94)	288.5 (2.21)	315.5 (3.51)
Documents	1998 (RefGroup)	180.4 (1.87)	216.9 (2.67)	249.3 (1.76)	284.8 (1.46)	315.7 (0.74)
	2004	178.0 (5.11)	219.5 (3.45)	**260.2** (2.09)	**296.7** (2.67)	**322.4** (1.20)
Overall	1998 (RefGroup)	183.6 (2.62)	213.5 (2.46)	250.5 (2.46)	284.3 (2.27)	317.3 (2.89)
	2004	186.3 (3.71)	216.7 (2.47)	250.4 (2.72)	285.9 (2.35)	317.8 (2.89)

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Summary

Scales were developed for First and Fifth class data. The First class scales have been set to a mean of 250 and a standard deviation of 50, while the scale for Fifth class takes 1998 as the reference year, and thus deviates slightly from the 250:50 format. Overall, and by subscale, there are no significant differences between the average reading achievement scores obtained by Fifth class pupils' in 1998 and 2004. However, for the documents (but not for the expository or narrative) subscale scores at the 50th, 75th and 90th were significantly higher in 2004.

At First and Fifth class, higher achievement scores are associated with favourable teacher ratings of current functioning on various aspects of language, including reading. For example, there are clear relationships between pupil achievement and teacher ratings of proficiency in oral language, reading, writing and spelling. Similarly, high achievers on the

assessment tend to be pupils whom teachers expected to do well on a standardised test of reading, and to cope well with future reading tasks.

In general, pupils who completed the achievement test were rated more favourably by teachers than pupils who did not take the test. For example, those who did not take the test were over three times as likely as those who did to be expected by their teacher to score at or below the 10th percentile on a standardised reading test.

5. Pupil Characteristics

In this chapter, associations between a variety of pupil characteristics and reading achievement are described. There are four main sections in the chapter. The first outlines pupils' background characteristics, including gender, age, and pre-school experiences. The second describes pupil engagement with learning, and includes attendance at school, teacher ratings of pupil behaviour, and the age at which pupils began to read independently. The third section describes leisure activities, including reading, watching TV and playing computer games. The fourth section examines pupils' attitudes to school and reading, and their aspirations and expectation for educational attainment.

Background Characteristics

Less than 2% of pupils (1.7% at First and 1.4% at Fifth) were members of the Traveller community (see Table 5.A1 on http://www.erc.ie/naer04/e-appendix). Such pupils had a significantly lower mean achievement score than members of the settled community (204.4 versus 250.7, respectively for First class; and 210.6 versus 250.7, respectively for Fifth class). The difference is just over 46 points[1] at First class and 40 points at Fifth class.

At both class levels, almost all pupils typically spoke English at home, while a small minority (0.7% and 0.8% at First and Fifth class, respectively) spoke Gaeilge at home (Table 5.A2). The 2.4% of First class pupils who spoke a language other than English or Gaeilge achieved a significantly lower mean score (229.6) than pupils who spoke English as their first language (250.4) (almost 21 points lower). However, due to its large standard error, the mean achievement score (224.8) of the 2.2% of Fifth class pupils who spoke a language other than Irish or English does not differ significantly from that of English speakers. The mean achievement scores of the sizeable minority of pupils (8.4% at First class and 10.5% at Fifth) who were not born in Ireland did not differ significantly from the mean scores of Irish-born pupils (Table 5.A3).

Gender

Girls had a significantly higher reading achievement score than boys at both grade levels (Table 5.1). At First class, the mean for girls is 255.4, compared to 244.9 for boys (a difference of 11 points). At Fifth class, the difference is approximately 7 points (253.4 for girls, compared to 246.6 for boys).

Table 5.1: Gender and pupil achievement

	1st class (N=3842)			5th class (N=4090)		
	%	Mean	SE	%	Mean	SE
Boys (RefGroup)	51.4	244.9	2.52	49.9	246.6	3.06
Girls	48.6	**255.4**	3.43	50.1	**253.4**	2.55

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

When achievement scores are examined in terms of reading content subscales, significant gender differences are found for the narrative and documents scales at both

[1] Some readers may wish to express point differences in terms of standard deviation units. The standard deviation for TARA is 50 at both grade levels. Thus, 21 points is just over two-fifths of a standard deviation.

grade levels (Table 5.2). The mean achievement score for girls on the narrative subscale is 255.2 (in First and Fifth class), compared to 245.2 for boys in First class and 244.8 in Fifth class. On the documents subscale, Fifth class girls and boys obtain mean achievement scores of 253.2 and 246.8, respectively, a difference of just over 6 points, while the corresponding difference in First class is twice that size. In First class, girls obtained slightly higher mean scores than boys on the expository subscale; however, this difference is not significant. The expository mean scores for boys and girls are almost identical at Fifth class.

Table 5.2: Mean scale scores for subscales, by gender

		1st class				5th class (N=4090)		
		N	%	Mean	SE	%	Mean	SE
Narrative	Boys (RefGroup)	3842	51.5	245.2	2.55	49.9	244.8	2.74
	Girls		48.5	**255.2**	3.31	50.1	**255.2**	2.29
Expository	Boys (RefGroup)	2550	50.9	247.2	3.26	49.9	249.7	2.90
	Girls		49.1	253.1	3..70	50.1	250.3	2.99
Documents	Boys (RefGroup)	2559	52.3	244.3	2.18	49.9	246.8	2.83
	Girls		47.7	**256.3**	3.65	50.1	**253.2**	2.22

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Proportionally more girls than boys score at or above the 90th percentile at both grade levels (13% of girls versus 9% of boys in First class; 11% of girls versus 9% of boys in Fifth class), and proportionally more boys than girls score at or below the 10th percentile (12% of boys versus 8% of girls at both grade levels) (Table 5.3). However, these differences are not statistically significant at either grade level.

Table 5.3: Proportion of boys and girls at or below the 10th and at or above the 90th percentiles

	1st class (N=3842)		5th class (N=4090)	
	% ≤10th (SE)	% ≥90th (SE)	% ≤10th (SE)	% ≥90th (SE)
Boys (RefGroup)	12.1 (1.61)	9.0 (1.79)	11.9 (1.67)	8.5 (0.90)
Girls	7.8 (2.33)	13.2 (1.26)	8.0 (1.17)	11.2 (1.43)

Bold denotes significantly different from the reference group. For help in interpreting table see page 37.

Age

The average age of pupils was 7.5 years in First class (on average, boys were a month older than girls) and 11.5 years in Fifth class (with little difference by gender). At each grade level, the distribution of pupil age was divided into thirds (those within the average age range for their grade, those younger and those older). First class pupils who were older than average had a significantly higher mean score (254.1) than pupils in the younger age category (243.4). In contrast, in Fifth class, pupils in the older category achieve a slightly lower mean score than pupils in the younger age category, but the difference is not significant (Table 5.4).

There were some significant differences when pupil age was linked to subscale scores (Table 5.A4). In First class, on each subscale older than average pupils had a significantly higher mean score than that obtained by younger than average pupils. In contrast, Fifth class pupils who were older than average obtained a mean documents score that was significantly lower than that obtained by younger than average pupils.

Table 5.4: Age and pupil achievement

	1st class (N=3841)			5th class (N=4088)		
	%	Mean	SE	%	Mean	SE
Older (RefGroup)	33.6	254.1	2.83	29.1	247.6	4.05
Average	29.8	253.6	3.66	35.9	248.8	2.23
Younger	36.7	**243.4**	2.87	35.0	253.3	2.60

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Pre-School Attendance

Parents were asked if their child had attended a pre-school in the year before they started primary school. Five percent of First class pupils and 4% of Fifth class pupils had attended an Early Start pre-school programme, while 83% of First class and 76% of Fifth class pupils had attended some other form of pre-school (Table 5.5). Thirteen percent of First class and 21% of Fifth class pupils had not attended any form of pre-school or playgroup. At both grade levels, those who attended Early Start performed significantly poorer than pupils who had attended another form of pre-school or playgroup (26 points lower for both grades), perhaps reflecting the fact that Early Start targets children in disadvantaged areas. Further, First class pupils who had attended Early Start obtained a significantly lower reading achievement score than pupils who had not attended any pre-school or playgroup (22 points lower).

Table 5.5: Pre-school attendance, and pupil achievement

	1st class (N=3609)			5th class (N=3906)		
	%	Mean	SE	%	Mean	SE
Early start (RefGroup)	4.5	227.6	4.55	3.6	229.9	6.54
Other pre-school	82.7	**253.5**	2.25	75.6	**255.8**	2.53
Neither	12.8	**249.9**	6.43	20.8	240.9	4.48

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Engagement in Learning

In this section, pupils' engagement in learning and reading is examined. Engagement in homework, school attendance, and teacher ratings of pupils' general behaviour in the classroom are explored.

Engagement in Homework

Table 5.6 presents information on the amount of time typically spent doing English homework. First class data are based on estimates by parents, while Fifth class data were obtained from pupils. Almost two-thirds (65%) of First class pupils and 46% of Fifth class pupils spent 15 minutes a day or less completing their English homework, while 1% (at each grade level) spent more than an hour a day doing so. Pupils who spent about 30 minutes a day obtained significantly poorer scores than those who spent about 15 minutes a day, and (Fifth class only) a significantly higher mean score than pupils who spent more than an hour a day on English homework. First class pupils who spent about 30 minutes a day on English homework achieved a significantly lower mean score (23 points lower) than pupils who spent five minutes or less at this activity.

Table 5.6: Time spent on English homework, and pupil achievement

	1st class (N=3594)			5th class (N=3985)		
	%	Mean	SE	%	Mean	SE
Five minutes or less	8.3	**269.1**	4.04	4.1	245.7	8.15
About fifteen minutes	56.6	**254.3**	2.72	41.4	**257.5**	2.94
About thirty minutes (RefGroup)	28.7	246.0	3.26	47.0	247.2	2.66
About an hour	5.2	233.8	5.87	6.6	230.9	6.49
More than an hour	1.1	225.4	9.43	0.9	**216.5**	7.60

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Attendance at School

On the Pupil Rating Form, teachers were asked to indicate the number of school days in the quarter ending March 31st 2004, and the number of days a pupil was present. Unfortunately, a small number of teachers supplied annual or half-year attendance data for their pupils. In a comparison of attendance data for this group with data for pupils whose teachers had returned the correct information, attendance rates were found to be almost identical at First class (Table 5.7). However, Fifth class pupils for whom quarterly attendance data were provided had a slightly lower attendance rate than pupils for whom data for another time period were provided (95% versus 97% respectively).

Table 5.7: Pupil attendance rates

	Attendance for Jan – Mar 2004			Annual/other		
	N	Mean%	SD	N	Mean%	SD
1st	3638	94.3	7.14	122	94.2	5.48
5th	3916	94.7	6.62	132	96.8	3.50

Given these findings, it seemed inappropriate to combine quarterly with other attendance data. Hence, only quarterly attendance data were used to calculate the correlations between attendance rates and achievement. At both First and Fifth class, there is a positive correlation between attendance and achievement (indicating that higher scores on the achievement test are associated with good attendance rates) (Table 5.8).

Table 5.8: Correlations between achievement and pupil attendance

	N	r	t	p
1st class	3638	**.164**	6.033	<.001
5th class	3916	**.118**	4.922	<.001

Significant correlations in bold. For help in interpreting table see page 36.

Behaviour in School and the Classroom

Teachers were asked to rate each pupil in their class on the following six behavioural characteristics: behaviour in school, participation in class, attention span/concentration, persistence in school work, getting along with other children, and ability to work with limited supervision. Both First and Fifth class pupils rated as having 'very good' attention span/concentration achieved significantly higher mean achievement scores than pupils who received other ratings. The largest difference is between pupils who are rated as 'very

good' and those who are rated as 'poor' at both grade levels (a difference of 80 points at First class and 83 points at Fifth class) (Table 5.9).

Table 5.9: Teachers' ratings of pupils' attention span/concentration, and pupil achievement

	1st class (N=3799)			5th class (N=4068))		
	%	Mean	SE	%	Mean	SE
Very good (RefGroup)	32.8	279.0	1.89	34.9	278.6	2.56
Good	27.9	**252.7**	1.49	28.1	**249.3**	3.52
Average	21.0	**235.8**	1.04	21.9	**237.1**	3.09
Fair	10.2	**219.5**	1.03	9.2	**209.8**	4.79
Poor	8.0	**199.0**	0.92	5.9	**195.5**	6.87

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Ratings for each of the five other behavioural characteristics show a similar relationship with achievement (i.e., pupils rated as 'very good' have significantly higher mean achievement scores than pupils assigned other ratings) (see Tables 5.A5 to A.9). As teacher ratings for all six behavioural characteristics are highly correlated, factor analyses were carried out to obtain summary measures of pupil behaviour. At both First and Fifth class, a single factor emerged (see Table 5.A10 and A11 for details of factor components and loadings). Correlations between the factor score and pupil achievement are moderate to strong at both First class (.50) and Fifth class (.50), indicating that pupils whose behaviour/participation is rated as poor by teachers tend to obtain lower achievement scores than pupils whose behaviour is rated more positively (Table 5.10).

Table 5.10: Correlations between achievement and pupils' classroom behaviour/participation

	N	r	t	p
1st class	3770	**.498**	19.041	<.001
5th class	4021	**.502**	17.257	<.001

Significant correlations in bold. For help in interpreting table see page 36.

Age Began Reading Alone

Fifth class pupils were asked at what age they began to read alone. Most (61%) reported starting to read alone between five and six years of age, while 1% said that they do not read independently (Table 5.11). Pupils who began to read alone at ages five or six have a significantly higher reading achievement score than pupils who started reading alone at ages seven or eight, or at nine or ten (a difference of 14 points and 21 points, respectively).

Table 5.11: Self-reported age at which reading alone began, and pupil achievement (Fifth class)

(N=3991)	%	Mean	SE
5 or 6 (RefGroup)	61.4	256.7	3.20
7 or 8	33.7	**243.2**	1.72
9 or 10	3.6	**225.8**	5.21
Don't read alone	1.3	203.3	27.63

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Current Reading Material

Teachers indicated that up to three-quarters of First and Fifth class pupils were using materials in English lessons that were designed for their own class level (Table 5.12). The 20% of First class and 14% of Fifth class pupils reading materials above their class level obtained significantly higher mean scores than pupils reading materials at or below their class level.

Table 5.12: Class level of reading material used with pupils, and pupil achievement

	1st class (N=3758)			5th class (N=3966)		
	%	Mean	SE	%	Mean	SE
Above class level (RefGroup)	20.4	292.2	3.03	13.8	290.9	4.41
At class level	70.4	**245.9**	3.01	75.1	**252.0**	2.44
Below class level	9.2	**191.9**	2.45	11.1	**186.2**	3.56

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Leisure Activities

Leisure Reading

Pupils were asked if they borrowed books from a public library. The 58% of First class pupils who borrowed books from a public library performed significantly better (a difference of 11 points) on the achievement test than pupils who did not (Table 5.13). The 30% of Fifth class pupils who borrowed from public libraries a few times a month achieved a significantly higher mean score (almost 21 points higher) than pupils who hardly ever or never borrowed books (Table 5.14). However, although pupils who borrowed books from a public library a few times a month achieve a score that is 15 points higher than that of pupils who borrowed books once or twice a week, the difference does not reach significance.

Table 5.13: Borrowing books from a public library, and pupil achievement (First class)

(N=3732)	%	Mean	SE
Yes (RefGroup)	57.7	255.1	2.41
No	42.3	**244.6**	3.04

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Table 5.14: Frequency of borrowing books from a public library, and pupil achievement (Fifth class)

(N=4004)	%	Mean	SE
Hardly ever/never	33.5	**240.1**	3.91
Few times a year	19.7	254.7	3.16
Few times a month (RefGroup)	30.0	260.6	2.52
Once or twice a week	14.5	245.9	5.49
Every day	2.2	255.8	10.54

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Fifth class pupils were asked how often they borrowed books from a class or school library. The 9% who borrowed books a few times a year have a significantly higher mean achievement score (20 points higher) than pupils who hardly ever or never borrowed books, but do not differ significantly from pupils who borrowed books on a monthly, weekly or daily basis (Table 5.15)[2].

Table 5.15: Frequency of borrowing books from a class or school library, and pupil achievement (Fifth class)

(N=4003)	%	Mean	SE
Hardly ever/never	13.3	**242.7**	4.05
Few times a year (RefGroup)	8.8	262.6	4.91
Few times a month	30.5	254.8	2.83
Once or twice a week	38.5	247.1	3.87
Every day	8.8	248.2	6.92

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

First class pupils were asked if they ever read books for fun. Just over half said they did so on some days, while 12% said they never did (Table 5.16). The 35% of pupils who read books for fun on a daily basis obtained a significantly poorer mean score than pupils who read books for fun on some days (245.0 versus 257.7, respectively). A similar pattern emerged when achievement was related to reading magazines or comics for fun and reading with parents (Tables 5.A12 and 5.A13). For example, the 37% of First class pupils who read with their mother or father every day achieved a significantly lower mean score than pupils who read with their parents on some days, or who never read with their parents (240.3 versus 258.0 and 255.4 respectively).

Table 5.16: Frequency of reading books for fun, and pupil achievement (First class)

(N=3694)	%	Mean	SE
Every day (RefGroup)	34.5	245.0	3.49
Some days	53.2	**257.7**	3.14
Never	12.3	237.1	3.20

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Fifth class pupils were asked how often they read stories or novels at home. One third did so every day or nearly every day; 25% did so once or twice a week; and a further 25% did so a few times a month. Pupils who read stories or novels every day or nearly every day attained a significantly higher mean score than pupils in other groups, with the difference largest (53 points) when compared to pupils who hardly ever or never read stories or novels (Table 5.17).

[2] This somewhat counterintuitive finding may arise because questions relating to library use were located amongst the questions relating to frequency of homework type received. Thus, pupils may have thought they were being asked how often they borrowed library books *for homework.*

Table 5.17: Frequency of reading stories/novels at home, and pupil achievement (Fifth class)

(N=4001)	%	Mean	SE
Hardly ever/never	8.2	**214.8**	3.93
Few times a year	8.7	**243.6**	4.35
Few times a month	25.2	**250.8**	3.95
Once or twice a week	25.2	**241.4**	3.35
Every day/nearly every day (RefGroup)	32.7	267.7	2.91

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Fifth class pupils were asked how often they read magazines and comic books, information books, emails and web pages, and newspapers at home. Since the relationship between reading achievement and frequency of reading a particular type of material is similar across each domain (see Tables 5.A14 to 5.A16), only data for reading information books are presented. As can be seen from Table 5.18, pupils who read information books a few times a month achieved a mean score of 259.6 – significantly higher than the mean score of pupils who hardly ever or never read such books (232.5).

Table 5.18: Frequency of reading information books at home, and pupil achievement (Fifth class)

(N=4001)	%	Mean	SE
Hardly ever/never	21.5	**232.5**	3.96
Few times a year	21.1	254.3	2.63
Few times a month (RefGroup)	33.8	259.6	3.01
Once or twice a week	18.6	251.6	3.49
Every day/nearly every day	5.1	245.9	5.51

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Fifth class pupils were asked how many hours they usually spent playing computer games or watching television, videos, or DVDs on school days and at the weekend. Thirty percent said that they watched up to one hour of television on school days, while a further 31% spend one to two hours watching television (Table 5.19). The 4% who spent more than five hours a day watching television achieved the lowest mean score (216.5) – significantly lower (by 35 points) than that of pupils who watched television for up to one hour a day (251.5).

Table 5.19: Time spent watching television/videos/DVDs on school days, and pupil achievement (Fifth class)

(N=4010)	%	Mean	SE
More than 5 hours	4.0	**216.5**	5.56
3 to 5 hours	8.2	244.4	4.93
2 to 3 hours	21.4	254.3	2.85
1 to 2 hours	30.9	254.7	3.11
Up to 1 hour (RefGroup)	29.8	251.5	3.37
None	5.7	237.9	7.10

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Weekend viewing times were longer, with one in ten pupils watching TV for at least five hours a day (Table 5.20). Pupils who did not watch any television at the weekend have the lowest mean achievement score (227.4) – significantly lower than those who watched TV for up to one hour a day at weekends (251.1).

Table 5.20: Time spent watching television/videos/DVDs on weekend days, and pupil achievement (Fifth class)

(N=4011)	%	Mean	SE
More than 5 hours	10.1	236.0	5.68
3 to 5 hours	17.3	256.4	3.10
2 to 3 hours	29.3	250.3	3.64
1 to 2 hours	26.3	254.5	2.59
Up to 1 hour (RefGroup)	13.4	251.1	4.45
None	3.6	**227.4**	8.71

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

There is a clear relationship between time spent playing computer games on school days and reading achievement. For example, the 32% of pupils who did not play computer games at all on school days achieved the highest mean score (257.3), which is almost 46 points higher than the mean score of pupils who spent more than five hours a day playing games (211.8). The 38% of pupils who spent up to one hour playing computer games on school days performed significantly better on reading achievement than pupils who spent three to five hours, or more than five hours doing so (a difference of 23 and 40 points respectively) (Table 5.21). With regard to playing computer games on weekends, the 34% of pupils who played games for up to an hour a day achieved the highest mean score (255.5) (Table 5.22). However, they differ significantly only from pupils who spent more than five hours a day playing computer games (227.1).

Table 5.21: Time spent playing computer games on schooldays, and pupil achievement (Fifth class)

(N=4014)	%	Mean	SE
More than 5 hours	1.7	**211.8**	5.36
3 to 5 hours	3.1	**229.1**	8.36
2 to 3 hours	8.5	234.2	7.97
1 to 2 hours	17.1	249.1	3.62
Up to 1 hour (RefGroup)	37.5	252.1	3.68
None	32.1	257.3	1.94

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Table 5.22: Time spent playing computer games on weekend days, and pupil achievement (Fifth class)

(N=4010)	%	Mean	SE
More than 5 hours	5.0	**227.1**	4.69
3 to 5 hours	6.4	234.5	8.85
2 to 3 hours	16.0	250.6	3.64
1 to 2 hours	21.3	252.4	2.74
Up to 1 hour (RefGroup)	33.7	255.5	2.81
None	17.6	250.1	3.47

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Information on the amount of time spent playing computer games or watching television, videos, and DVDs cannot be combined as precise estimates of number of minutes were not obtained. Nonetheless, it is apparent from Tables 5.19 to 5.22 that a considerable number of pupils spent three hours or more in these activities on a daily basis.

Attitudes, Aspirations and Expectations

As part of the Pupil Questionnaire, all pupils were asked about their attitudes towards school and reading. In addition, Fifth class pupils were asked about their expectations and aspirations for school attainment. As different scales were used for the attitudinal statements at each grade level, First and Fifth class data are presented separately.

Attitude to School

The 62% of First class pupils who agreed that they liked school obtained a significantly lower mean achievement score than pupils who were not sure if they liked school (a difference of 19 points), but do not differ significantly from those who disagreed that they liked school (Table 5.23).

Table 5.23: Agreement with the statement 'I like school', and pupil achievement (First class)

(N=3720)	%	Mean	SE
Agree (RefGroup)	61.9	246.4	2.65
Not sure	22.7	**265.2**	4.50
Disagree	15.3	248.4	3.31

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Eleven percent of Fifth class pupils indicated that they liked school a lot, with a further 51% stating they liked school (Table 5.24). The 17% who said that they disliked school a lot obtained the lowest mean score (224.3), which is significantly lower than the mean score of 257.2 obtained by pupils who liked school.

Table 5.24: Attitude to school, and pupil achievement (Fifth class)

(N=4000)	%	Mean	SE
Like a lot	11.3	249.9	5.95
Like (RefGroup)	50.6	257.2	2.14
Dislike	21.6	254.0	3.20
Dislike a lot	16.5	**224.3**	4.55

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Attitude to Reading

All pupils were asked to rate their level of agreement with the statement 'I like reading'. Just over three-quarters of First class pupils agreed that they liked reading and these pupils obtained a significantly higher mean score than pupils who were not sure or disagreed with the statement (254.7 versus 242.0 and 230.8, respectively) (Table 5.25). Almost 80% of Fifth class pupils agreed or strongly agreed with the statement 'I like reading', while just under 8% disagreed or strongly disagreed (Table 5.26). Pupils who strongly agreed achieved the highest mean score (269.4) – significantly higher than the mean scores of any

other group of pupils. Indeed, the difference in scores between pupils who strongly agreed and those who strongly disagreed that they liked reading is 55 points.

Table 5.25: Agreement with the statement 'I like reading', and pupil achievement (First class)

(N=3722)	%	Mean	SE
Agree (RefGroup)	76.2	254.7	2.56
Not sure	15.3	**242.0**	3.30
Disagree	8.5	**230.8**	7.26

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Table 5.26: Agreement with the statement 'I like reading', and pupil achievement (Fifth class)

(N=4000)	%	Mean	SE
Strongly agree (RefGroup)	38.9	269.4	2.74
Agree	40.3	**243.2**	2.55
Not sure	13.1	**228.6**	4.32
Disagree	5.4	**235.9**	9.01
Strongly disagree	2.3	**214.8**	5.76

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

First and Fifth class pupils were asked to rate their agreement with a series of statements relating to reading. As initial analyses indicated that pupil ratings of the eight statements at First class and 36 statements at Fifth class are highly correlated, a factor analysis was carried out to obtain summary measures of pupil attitudinal ratings. Two factor scores were extracted at First class, and four factor scores at Fifth class. Details of factor components and loadings are presented in Tables 5.A17 and A18.

The first factor score obtained at First class was labelled 'Reading as a social and interesting activity' and includes responses to statements such as 'I like to tell my family about what I am reading', and 'I like reading'. Although the factor does not correlate significantly with achievement (Table 5.27), it should be noted that First class pupils in general hold positive attitudes to reading as a social and interesting activity. The second factor score measures 'Perceived reading ability' and is composed of responses to two items: 'Do you think you are good at reading' and 'My teacher thinks I am good at reading'. There is a significant correlation between this factor and achievement (r = .20), indicating that stronger agreement with the two statements is related to higher achievement.

Table 5.27: Correlations between achievement and attitudes to reading (First class)

(N=3605)	r	t	p
Reading as a social and interesting activity	-.006	-0.215	0.831
Perceived reading ability	**.195**	7.824	<.001

Significant correlations in bold. For help in interpreting table see page 36.

At Fifth class, the first factor score is labelled as 'Reading as an enjoyable and valuable activity'. It includes items such as 'I like reading' and 'For me, reading is a waste of time' (which has a negative loading on the factor). The second factor score is labelled as 'Reading as a social activity', with the variables 'I talk to my friends about what I am

reading' and 'I like to tell my family about what I am reading' having the highest loadings on this factor score. The third variable – 'Reading competence as perceived by self and others' – includes variables such as 'I know I will be good at reading next year' and 'My teacher thinks I am a good reader'. Finally, the fourth factor – 'Enjoyment of challenging reading' – includes 'I don't like reading something when the words are too difficult' and 'Complicated stories are no fun to read'.

There are moderate correlations between achievement and 'Reading as an enjoyable and valuable activity' (r = .37) and 'Enjoyment of challenging reading' (r = .29) (Table 5.28). Thus, higher achievement scores are associated with agreement that reading is an interesting and valuable activity, and that reading challenging material is enjoyable.

Scores on 'Reading competence as perceived by self and others' show a weak to moderate correlation with achievement (r = .16), indicating that those who perceive themselves to be competent readers tend to obtain higher achievement scores. Finally, there is also a weak (and non-significant) negative correlation between achievement and the view of reading as a social activity (r = –.06).

Table 5.28: Correlations between achievement and attitudes to reading (Fifth class)

(N=3475)	r	t	p
Reading as an enjoyable/valuable activity	**.365**	8.135	<.001
Reading as social activity	-.063	-1.491	0.141
Reading competence as perceived by self and others	**.155**	5.355	<.001
Enjoyment of challenging reading	**.290**	-12.381	<.001

Significant correlations in bold. For help in interpreting table see page 36.

Aspirations and Expectations for School Attainment

Fifth class pupils were asked how far they would like to go in school. Most (71%) wanted to go to college, whereas just over 1% wanted only to finish primary school (Table 5.29). Those who wanted to go to college obtained a significantly higher mean score (259.0) than those who wanted to leave after the Leaving Certificate (229.4), after the Junior Certificate (208.4), after finishing primary school (221.8), and those who did not know when they wanted to leave school (233.2). The largest difference (51 points) is between pupils who want to go to college and those want to leave after the Junior Certificate.

Table 5.29: Aspirations for school attainment, and pupil achievement (Fifth class)

(N=3983)	%	Mean	SE
Go to College/University (RefGroup)	71.4	259.0	2.18
Do leaving Cert	13.4	**229.4**	5.51
Do Junior Cert	2.1	**208.4**	8.49
Finish primary school	1.3	**221.8**	8.33
Don't know	11.7	**233.2**	3.93

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Fifth class pupils were also asked how far they thought they would actually go in school. There is a moderate positive correlation between responses to this question and responses to the previous question on aspirations for school attainment (r = .37; t = 10.672; p<.001, N=3978). In general, expectations tend to be lower than aspirations. For example, although 71% hoped to go to college, only 54% expected to do so. Pupils who expected to go to college had a significantly higher mean achievement score (261.6) than those who

expected to complete Leaving Certificate only, Junior Certificate only, primary school only, or those who did not know when they would leave school (Table 5.30). The difference is largest (69 points) when those who expected to attend college are compared with pupils who expected to leave school after finishing primary school, though just under 1% of pupils were in the latter grouping.

Table 5.30: Expectations for school attainment, and pupil achievement (Fifth class)

(N=3981)	%	Mean	SE
Go to College/University (RefGroup)	54.2	261.6	2.72
Do leaving Cert	20.5	**237.2**	3.01
Do Junior Cert	2.3	**212.5**	5.33
Finish primary school	0.9	**192.6**	6.08
Don't know	22.1	**241.4**	3.65

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Missing Data

Although most pupils who completed the achievement test also completed the Pupil Questionnaire, data on the latter are missing for 95 (2.5%) First class pupils and for 68 (1.7%) Fifth class pupils (Table 5.31). At First class, pupils who did not complete a Pupil Questionnaire achieved a mean score of 227.2, compared to 250.6 for those who completed the questionnaire, while the equivalent scores for Fifth class pupils are 239.9 and 250.2. Differences are significant for First, but not for Fifth class pupils. Due to the small numbers involved, these results must be treated with caution.

Table 5.31: Mean achievement scores for those who did or did not complete the Pupil Questionnaire

	1st			5th		
	%	Mean	SE	%	Mean	SE
Completed	97.5	**250.6**	2.46	98.3	250.2	2.42
Missing (RefGroup)	2.5	227.2	8.48	1.7	239.9	6.86

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Summary

At both grade levels, girls obtained significantly higher reading achievement scores than boys, and were more likely to have high scores (at or above the 90th percentile), and less likely to have low scores (at or below the 10th percentile). In First class, pupils who were older than average obtained a significantly higher mean score than pupils who were younger than average. In Fifth class, the corresponding difference is not significant. In both First and Fifth classes, pupils from the Traveller community achieved significantly lower mean scores than pupils from the settled community, while (in First class only) pupils whose first language was neither English nor Gaeilge achieved significantly lower mean scores than pupils whose first language is English. At both grade levels, pupils who had attended Early Start obtained a below average mean score.

Generally, the less time pupils spent completing English homework, the better their achievement scores tended to be. For example, the mean score of First class pupils who spent no more than five minutes a day completing English homework was 269. At First and Fifth class, higher achievement scores were associated with a low level of absenteeism.

Correlations between teacher ratings of behaviour and pupil achievement are moderately to strongly positive, meaning that lower achievement is associated with poorer ratings of behaviour in school and in the classroom. Fifth class pupils were asked at what age they began to read alone, and those who began to do so at an early age achieved a significantly higher mean achievement score than pupils who began to do so at a later age. In both First and Fifth classes, lower scores tended to be associated with rarely or never borrowing books from a public library, not liking to read, or not perceiving oneself to be a competent reader.

In Fifth class, lower scores were associated with low educational aspirations and expectations, a dislike of school, rarely reading stories or novels at home, spending more than five hours a day (on school days) watching TV or playing computer games. The relationship between achievement and similar attitudinal or behavioural variables was less clear at First class. For example, First class pupils who were unsure if they liked school obtained a higher mean score than pupils who liked school, while those who read for fun on a daily basis obtained a lower mean score than pupils who occasionally read for fun.

6. Home Environment

This chapter, in which reading achievement is related to characteristics of pupils' home environments, is divided into four main sections. The first describes household composition and family size; the second socioeconomic status, including medical card possession, parental employment and educational attainment; the third home-school interaction, including attendance at parent-teacher meetings, contacts with the school, and knowledge of school activities. The final part examines the home 'atmosphere', including educational resources in the home, rules regarding TV and computer use, parental reading practices, use of public libraries, and parents' expectations for their child's educational attainment.

Data presented in the chapter are mainly based on responses to Parent Questionnaires. Each pupil who participated in NAER was given a Parent Questionnaire, for completion by a parent. At both First and Fifth class, 99% of returned questionnaires were completed by a parent, while 1% were completed by a guardian, a grandparent or another person (e.g., childminder). Parent Questionnaires were typically completed by a pupil's mother or female guardian (89% of pupils at First and 87% at Fifth class). For ease of presentation, most of this chapter uses the terms parent, mother and father to represent parent/guardian, mother/female guardian and father/male guardian.

Household Composition and Size

Most pupils (79% of Fifth and 81% of First class pupils) lived with both parents, while 15% at each grade level lived in a female-headed lone-parent household (Table 6.1). Two percent of First class pupils and 3% of pupils in Fifth class lived with a parent and a guardian, while 1% of First class and 2% of Fifth class pupils lived in a male-headed lone-parent household. Approximately 1% at each grade level lived in other types of households (e.g., living with one or two guardians).

Table 6.1: Percentage of pupils living in households of various compositions

	1st class (N=3588)	5th class (N=3906)
Mother & Father	81.2	79.3
Lone Mother	15.1	15.1
Parent & guardian	1.7	2.9
Lone Father	1.0	1.9
Other	1.0	0.8

At each grade level, pupils living in a lone parent household (mother only, father only, or single guardian only) had a significantly lower mean score (13 points[1] lower at First and 21 points lower at Fifth class) than pupils not living in such a household (Table 6.2).

[1] Some readers may wish to express point differences in terms of standard deviation units. The standard deviation for TARA is 50 at both grade levels. Thus, 13 points is just over one-quarter of a standard deviation.

Table 6.2: Lone parent status and pupil achievement

	1st class (N=3588)			5th class (N=3906)		
	%	Mean	SE	%	Mean	SE
Lone parent/guardian (RefGroup)	16.3	241.2	3.18	17.3	234.3	3.46
Other	83.7	**254.2**	2.50	82.7	**255.3**	2.26

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Parents were asked to indicate the total number of people living in their house, and the number of younger and older brothers and sisters their child had. Household size for First class pupils averaged 4.8 people, compared to 5 people for Fifth class. At each grade level, there was a weak negative correlation between the number of people in a household and pupil achievement (–.07 and –.08 in First and Fifth class, respectively), meaning that pupils from larger households tended to have slightly poorer reading achievement (Table 6.3).

Table 6.3: Correlations between household size and pupil achievement

	N	r	t	p
1st class	3590	**-.071**	2.284	.026
5th class	3880	**-.080**	2.443	.018

Significant correlations in bold. For help in interpreting table see page 36.

When asked about the number of younger or older brothers and sisters a pupil had, parents were presented with response options of 0, 1, 2, 3, and 4 or more for each type of sibling (e.g., older sisters). Therefore, the family size of those from families with four or more siblings cannot be accurately reported, beyond indicating that they have at least four siblings. Most pupils (67% of First class and 60% of Fifth class pupils) had either one or two siblings. Mean achievement scores of pupils with no siblings, or between one and three siblings, are all above the test mean of 250. First and Fifth class pupils with four or more siblings have mean scores below the test mean (240.6 and 237.3, respectively). At both grade levels, pupils in this group had significantly lower mean scores than their classmates with two siblings. Further, Fifth class pupils with four or more siblings had significantly poorer mean achievement than those with only one sibling (Table 6.4).

Table 6.4: Number of siblings and pupil achievement

	1st class (N=3205)			5th class (N=3376)		
	%	Mean	SE	%	Mean	SE
No siblings	10.8	256.0	3.06	6.6	255.9	4.84
1 sibling	33.7	254.0	2.79	28.2	**260.0**	2.35
2 siblings	33.2	**260.8**	2.86	31.7	**257.0**	2.75
3 siblings	14.0	251.2	4.21	19.3	253.2	4.66
4+ siblings (RefGroup)	8.3	240.6	7.97	14.2	237.3	7.11

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Table 6.5 examines the relationship between birth order and achievement, with pupils divided into those who are only children, youngest or oldest children, or whose birth order falls in the middle of other siblings. The proportion of pupils who are only children is slightly higher at First than at Fifth class (11% versus 7%, respectively). At each grade level, the 29% of pupils who are oldest children had the highest mean scores (258.3 and 262.5 for First and Fifth class, respectively). Amongst First class pupils, birth order was

not associated with any significant differences in mean scores. However, in Fifth class, pupils who were the oldest children in the family achieved a significantly higher mean score than pupils who are youngest or middle children.

Table 6.5: Birth order, and pupil achievement

	1st class (N=3367)			5th class (N=3376)		
	%	Mean	SE	%	Mean	SE
Only child	10.6	254.9	3.13	6.5	256.7	4.30
Youngest	32.0	251.5	3.33	31.5	**249.7**	2.61
Middle	28.6	249.7	4.41	32.7	**247.6**	3.62
Oldest (RefGroup)	28.8	258.3	2.44	29.4	262.5	2.80

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Socioeconomic Indicators

This section presents data on socioeconomic indicators, including parental employment status, socioeconomic status, educational attainment, and medical card possession.

Employment Status

Information on parental employment status was obtained from the Parent Questionnaire and from the Pupil Rating Form (completed by teachers). Where available, data from the Parent Questionnaire were used. Where such data were unavailable, data from the Pupil Rating Forms were used.

At each grade level, approximately one-third of pupils' mothers were in part-time employment, while approximately one-quarter were in full-time employment (Table 6.6). Approximately one third of pupils' mothers were engaged in full-time home duties, while 3% were looking for work at the time of the survey. Four percent of Fifth class pupils' mothers and 3% of First class pupils' mothers described their employment status as 'other' (a category that included students and retirees, among others). At Fifth class, pupil achievement did not vary significantly by maternal employment status. However, First class pupils whose mothers were in full-time employment obtained a mean achievement score (261.0) that is significantly higher than the mean scores of those whose mothers were seeking work (231.5) or were engaged in full-time home duties (245.6).

Table 6.6: Maternal employment status, and pupil achievement

	1st class (N=3719)			5th class (N=3988)		
	%	Mean	SE	%	Mean	SE
Full-time employed (RefGroup)	23.3	261.0	2.39	27.4	255.8	3.24
Part-time employed	33.4	251.4	3.33	34.0	250.7	2.63
Looking for work	3.0	**231.5**	4.80	3.3	247.8	6.92
Home duties	36.9	**245.6**	3.46	31.1	247.0	3.4
Other	3.4	243.7	8.09	4.2	252.4	7.65

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Employment rates were higher among fathers than among mothers. At each grade level, over 90% of pupils' fathers were employed on a part-time or full-time basis (Table 6.7). Fifth class pupils whose fathers were in full-time employment achieved a significantly higher mean score (255.0) than the 4% whose fathers were seeking

employment at the time of the survey (208.3) – a difference of 47 points. In First class, the mean score of pupils whose fathers were in full-time employment differed significantly only from the mean score of pupils whose fathers' employment status was 'other' (254.1 versus 234.2, respectively).

Table 6.7: Paternal employment status, and pupil achievement

	1st class (N=3451)			5th class (N=3742)		
	%	Mean	SE	%	Mean	SE
Full-time employed (RefGroup)	88.7	254.1	2.46	84.8	255.0	2.38
Part-time employed	3.9	238.1	8.16	6.2	239.5	8.63
Looking for work	3.0	242.0	12.66	3.7	**208.3**	7.64
Home duties	1.6	240.9	11.81	2.0	253.1	5.41
Other	2.8	**234.2**	6.31	3.3	242.8	8.29

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Data were combined for maternal and paternal employment to establish the proportion of households where no parent, one parent, or two parents were in employment. At each grade level, both parents of approximately half of pupils were employed (Table 6.8). A further 45% of First class and 40% of Fifth class pupils came from homes where one parent was employed. At both grade levels, the almost 8% who did not have an employed parent have significantly poorer mean achievement scores (226.4 in First class and 223.8 in Fifth) than pupils with two employed parents (257.7 and 255.1, for First and Fifth class, respectively). Further, in First class, pupils with two employed parents obtained a significantly higher mean score than pupils with one employed parent (246.6).

Table 6.8: Parental employment status, and pupil achievement

	1st class (N=3772)			5th class (N=4039)		
	%	Mean	SE	%	Mean	SE
No parent employed	7.2	**226.4**	6.01	7.5	**223.8**	6.89
One parent employed	45.0	**246.6**	2.95	40.0	249.4	3.95
Both parents employed (RefGroup)	47.9	257.7	2.41	52.4	255.1	1.94

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Socioeconomic Status

Information about parental occupations was coded using the International Socio-Economic Index (ISEI) scale (Ganzeboom, De Graaf, & Treiman, 1992), which provides a measure of socioeconomic status. Scores on the ISEI scale range from 16 to 90, and higher scores are associated with higher socioeconomic status. For example, a score of 16 is assigned to a domestic cleaner, while a score of 90 is assigned to a judge. Maternal and paternal scores were compared and the highest value was taken as representative of the family as a whole, in order to produce a 'family' ISEI score.

Correlations between family ISEI scores and pupil achievement at both First and Fifth classes (.27 and .29, respectively) are moderate (Table 6.9). Thus, pupils whose family had a high score for socioeconomic status tended to have higher achievement scores than pupils whose family ISEI score was low.

Table 6.9: Correlations between ISEI score and pupil achievement

	N	r	t	p
1st class	3318	**.266**	9.732	<.001
5th class	3594	**.289**	11.761	<.001

Significant correlations in bold. For help in interpreting table see page 36.

Medical Card Possession

Medical card coverage ranged from 22% of First class to 24% of Fifth class pupils (Table 6.10). At each grade level, pupils not covered have significantly higher mean achievement scores (26 points higher in First class and 28 points in Fifth) than pupils whose parents had a medical card.

Table 6.10: Medical card possession, and pupil achievement

	1st class (N=3579)			5th class (N=3866)		
	%	Mean	SE	%	Mean	SE
Yes	21.7	**231.4**	4.33	23.5	**230.4**	4.51
No (RefGroup)	78.3	257.4	2.16	76.5	258.7	2.19

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Parents' Educational Attainment

Parents were asked to indicate their own educational attainments and those of their partner (where applicable). Data on maternal attainment are missing for 13% of pupils at each grade level, and on paternal attainment for 29% of Fifth and 26% of First class pupils. The high missing rate for paternal attainment may be attributable to a number of factors, including the 15% of households that were headed by female lone-parents and the fact that mothers generally completed the Parent Questionnaire. Further, less than half a percent provided responses about maternal and paternal educational attainment that were too vague to classify. These were added to the missing category.

A minority of First class pupils' mothers and fathers (4% and 5%, respectively) and of Fifth class pupils' parents (7% of mothers and fathers) had not completed any post-primary school examination (Tables 6.11 and 6.12). For pupils at both grade levels, the most common level of maternal attainment was a Post-Leaving Certificate (PLC) course or a third level certificate or diploma (34% of First class and 31% of Fifth class pupils). The most common level of paternal attainment was Junior Certificate or a similar examination, such as O levels (33% at First class and 31% at Fifth class).

There is a clear relationship between maternal educational attainment and pupil achievement. For example, Fifth class pupils whose mothers had not completed a post-primary school examination achieved the lowest mean score – a full 71 points lower than the mean score of pupils whose mothers had completed a postgraduate degree. Similarly, First class pupils whose mothers had not completed a post-primary school examination achieved the lowest mean score (226.7), while those whose mothers had completed a postgraduate degree achieved the highest mean score (276.0).

At each grade level, pupils whose mothers had completed Leaving Certificate achieved a significantly higher mean score than pupils whose mothers sat no examination or completed only the Junior Certificate, and a significantly lower mean score than pupils whose mothers had completed an undergraduate or postgraduate degree.

Table 6.11: Maternal educational attainment, and pupil achievement

	1st class (N=3346)			5th class (N=3556)		
	%	Mean	SE	%	Mean	SE
No post-primary examination	4.4	**226.7**	11.04	7.1	**215.4**	5.29
Junior Cert./similar	21.8	**234.1**	4.56	21.5	**231.7**	3.89
Leaving Cert./similar (RefGroup)	21.0	254.3	3.42	19.4	256.5	2.11
PLC/Certificate/Diploma	33.7	260.0	2.41	30.6	260.3	2.36
Undergrad. Degree	14.6	**270.1**	2.98	16.7	**272.3**	5.19
Postgrad. degree	4.4	**276.0**	4.17	4.8	**286.8**	4.27

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

The relationship between paternal attainment and achievement was similar to that between maternal attainment and achievement, although the differences are not as pronounced. Lowest mean scores were obtained by those whose fathers had completed no examination (230.7 and 235.6, for First and Fifth class, respectively), while highest mean scores were obtained by pupils whose fathers had completed an undergraduate or postgraduate degree. Pupils whose fathers had completed Leaving Certificate achieved significantly lower mean scores (up to 22 points) than those whose fathers had completed an undergraduate or postgraduate degree, and (in the case of Fifth class only) a significantly lower mean score than pupils whose father had completed a PLC/third level certificate or diploma. Further, First class pupils whose fathers completed Leaving Certificate scored significantly higher than pupils whose fathers had not taken any post-primary examination.

Table 6.12: Paternal educational attainment, and pupil achievement

	1st class (N=2829)			5th class (N=2908)		
	%	Mean	SE	%	Mean	SE
No post-primary examination	5.0	**230.7**	6.67	7.4	235.6	6.46
Junior Cert./similar	33.1	244.8	4.35	31.1	243.9	4.13
Leaving Cert./similar (RefGroup)	22.4	252.7	3.07	21.5	253.5	3.49
PLC/Certificate/Diploma	21.4	263.6	4.02	19.6	**266.5**	2.7
Undergrad. Degree	12.2	**272.1**	3.51	12.8	**279.0**	5.01
Postgrad. degree	5.9	**274.7**	5.61	7.6	**275.5**	4.72

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

An examination of mean achievement and combined parental educational attainment (highest maternal or paternal value taken where both were available) reveals that the lowest scores were obtained by the small proportion of pupils (3% of First and 5% of Fifth class pupils) for whom neither parent had completed a post-primary school examination, while the highest mean scores were obtained by pupils for whom at least one parent had completed a postgraduate degree. The difference in mean scores between the two extremes is 45 points at First and 63 points at Fifth class (Table 6.13).

First class pupils for whom the Leaving Certificate was the highest level of parental attainment have significantly higher scores than pupils for whom the highest level was Junior Certificate (246.2 versus 231.1, respectively), and significantly lower scores than those for whom a PLC course/certificate or diploma (257.4), an undergraduate degree, (269.2) or a postgraduate degree (273.9) was the highest level of attainment. At Fifth class, pupils whose parents had done the Leaving Certificate had higher mean scores than pupils whose parents had completed no examinations (214.6), or had only completed the Junior Certificate (227.0), and lower mean scores than pupils with at least one parent who had completed an undergraduate (272.2) or postgraduate degree (278.0).

Table 6.13: Parental educational attainment, and pupil achievement

	1st class (N=3532)			5th class (N=3783)		
	%	Mean	SE	%	Mean	SE
No post-primary examination	3.1	229.4	15.67	4.6	**214.6**	3.99
Junior Cert./similar	17.4	**231.1**	4.49	19.3	**227.0**	5.15
Leaving Cert./similar (RefGroup)	20.9	246.2	2.99	19.2	251.0	2.35
PLC/Certificate/Diploma	33.8	**257.4**	2.59	29.8	257.2	2.35
Undergrad. Degree	17.4	**269.2**	2.87	18.3	**272.2**	4.38
Postgrad. degree	7.4	**273.9**	4.38	8.8	**278.0**	3.02

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Home-School Interaction

Parents were asked a number of questions about their involvement with school life, including attendance at parent-teacher meetings, and communication with the school about their child's progress in English. Teachers were also asked to rate the extent to which pupils' parents were supportive of their child's development in reading.

Most parents (97% at each grade level) indicated that their child's school held formal parent-teacher meetings. Where schools held such meetings, almost all parents (93% at First class; 94% at Fifth) had attended a meeting in the school year in which the survey was carried out. At each grade level, pupils whose parents had attended such a meeting in the year in which the survey took place had significantly higher scores (252.5 at First class; 253.4 at Fifth) than the minority of pupils whose parents had not attended a meeting (235.1 at First class; 224.8 at Fifth) (see Table 6.A1 in e-appendix on http://www.erc.ie/naer04/e-appendix).

Apart from parent-teacher meetings, 49% of First class and 63% of Fifth class pupils' parents had not been in contact with school staff during the school year to discuss their child's progress in English (Table 6.14). A gradual decline in mean scores is in evidence as the number of home-school contacts increases. First class pupils whose parents had no additional contact with the school obtained a mean score (265.2) that is significantly higher than that of pupils whose parents had been in contact with the school once or twice (241.8), three or four times (237.0) or five or more times (225.3). A similar pattern emerges in Fifth class. Pupils whose parents had no additional contact with the school had a mean score of 262.6, significantly higher than those whose parents had been in contact with the school on one or two (236.8), or three or four occasions (217.3). However, they do not differ significantly from pupils whose parents have had at least five additional contacts with the school, mainly because of the large standard error associated with the mean score of pupils in the latter category.

Table 6.14: Home-school contact (excluding parent-teacher meetings), and pupil achievement

	1st class (N=3603)			5th class (N=3906)		
	%	Mean	SE	%	Mean	SE
No contact (RefGroup)	48.5	265.2	2.63	62.7	262.6	2.37
Once or twice	35.7	**241.8**	3.07	28.6	**236.8**	4.02
3 or 4 times	11.0	**237.0**	4.33	6.6	**217.3**	4.26
5 or more	4.8	**225.3**	5.63	2.1	236.5	17.57

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

On the Pupil Rating Form, teachers were asked to indicate how supportive they felt each pupil's parents were of their child's development in English. A majority at each grade level were rated as very supportive, with only 4% and 3% (Fifth and First class, respectively) rated as not supportive. At each grade level, pupils whose parents were rated as very supportive obtained significantly higher mean scores than pupils whose parents were rated as somewhat supportive or not supportive, or (in the case of Fifth class only) for whom parental support levels were not known by teachers (Table 6.15).

Table 6.15: Teacher ratings of parental support in developing their child's English, and pupil achievement

	1st class (N=3794)			5th class (N=4063)		
	%	Mean	SE	%	Mean	SE
Very supportive (RefGroup)	70.0	260.1	2.65	64.5	262.6	1.79
Somewhat supportive	25.3	**228.7**	3.24	29.2	**232.0**	3.25
Not supportive	3.1	**203.7**	3.60	3.6	**198.6**	4.63
Not known	1.6	235.8	12.08	2.8	**216.4**	8.33

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Home Atmosphere

In this section, we describe variables associated with home 'atmosphere'. These include parental reading habits and attitudes towards reading, parent-pupil interactions relating to literacy, educational resources in the home, and parental rules governing TV viewing and using computers. Teacher views on parental engagement are also included.

Parent-Child Interaction Related to Reading

Parents were asked how frequently anyone in their home had read to their child, prior to enrolling in school. At least one-third of pupils at each grade level had been read to on a daily basis (Table 6.16). Approximately half were read to a few times a week, while 13% at each grade level were read to no more than a few times a month. First and Fifth class pupils read to on a daily basis had higher mean scores (269.4 and 271.1, respectively) than pupils read to a few times a week, a few times a month, or rarely or never. The differences in mean achievement scores between pupils read to daily and those rarely or never read to is 53 points at First class and 55 points at Fifth class.

Table 6.16: Frequency of someone in the home reading to child (pre-school), and pupil achievement

	1st class (N=3634)			5th class (N=3937)		
	%	Mean	SE	%	Mean	SE
Every day (RefGroup)	33.8	269.4	3.76	37.2	271.1	2.58
Few times a week	49.9	**247.0**	2.44	46.2	**243.2**	2.30
Few times month	13.5	**232.5**	3.63	13.4	**234.1**	3.68
Rarely / Never	2.7	**216.5**	3.63	3.2	**216.4**	8.09

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Parents were asked about the frequency with which, while in Infants classes, their child read to someone in the home. At both grade levels, pupils who read to someone on a daily basis had significantly higher mean scores than pupils in all other groups (see Table 6.A2 for details). For example, pupils who read to someone on a daily basis obtained mean

achievement scores (263.6 in First class and 259.5 in Fifth) that are 42 and 39 points higher (First and Fifth, respectively) than the mean scores of pupils who rarely or never did so.

At each grade level, the 99% of pupils whose parents reported that they encouraged their child to read books achieve significantly higher mean scores than their classmates (Table 6.A3). Those whose parents did not encourage them achieved a mean score of 214.8 at First class and 214.5 at Fifth class, while those whose parents encouraged them had mean scores close to the test mean of 250. However, as only 1% of parents indicated that they did not encourage their child to read books, the differences found must be treated with caution.

Although 99% of parents said they encouraged their child to read books, far fewer actually discussed with their child something that the child had read. Only half of First class pupils' parents and 26% of Fifth class pupils' parents reported that such discussions happened a few times a week. Parents of 4% of First class pupils and of 10% of Fifth class said such discussions took place no more than once or twice a year. However, pupil achievement generally did not vary significantly by the frequency with which parent and child discussed something the child had read (the exception was Fifth class pupils whose parents discussed something once a week (249.5) compared to parents who discussed something once a month (260.1)) (Table 6.A4).

Help with Homework

Parents were asked who, if anyone, usually helped their child with homework, and what type of help was given. In a large majority of cases (91% of First class and 86% of Fifth class pupils), help with homework was usually offered by the pupil's mother. Seven percent of First class pupils and 10% of pupils in Fifth class were usually helped by their father, while a small minority were helped by someone other than their mother or father. The type of help provided varied by grade level. First class pupils were most likely to get help with learning spellings or reading aloud (87% and 82% of pupils, respectively), and least likely to get help writing a story or essay. Fifth class pupils were also most likely to get help with spellings (76% of pupils), but were least likely to get help with reading aloud. With the exception of helping with writing a story or essay, larger proportions of First class than of Fifth class pupils' parents indicated that they provided help with various homework activities (Table 6.17).

Table 6.17: Percentages of parents indicating that they provided various types of help with their child's English homework

	1st class (N=3650)	5th class (N=3951)
	% Yes	% Yes
Reading aloud	82.4	38.7
Answering questions about reading	54.4	50.8
Writing a story or essay	38.7	52.6
Learning spellings	87.2	76.2
Completing workbook exercises	68.2	45.9

Generally, pupil achievement was not significantly associated with the type of help with homework that parents provided (see Tables 6.A5 to 6.A8 in e-appendix). However, at both First and Fifth class, pupils whose parents helped with reading aloud achieved a significantly lower mean score than pupils who did not receive such help (Table 6.18). Fifth class pupils whose parents provided help with answering questions about reading

achieved a significantly lower mean score than pupils whose parents did not provide such help (246.6 and 256.2, respectively) (Table 6.A5).

Table 6.18: Whether parents provide homework help with reading aloud, and pupil achievement

	1st class (N=3650)			5th class (N=3950)		
	%	Mean	SE	%	Mean	SE
Yes (RefGroup)	82.4	249.3	2.65	38.7	243.4	2.70
No	17.6	**262.8**	3.87	61.3	**256.3**	2.90

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Parental Reading: Attitudes and Practices

Parents were asked a number of questions about their reading practices and their attitudes to reading. Eleven items gauged parental attitudes to reading (e.g., 'I like reading' 'Reading is a waste of time'). As these items were highly intercorrelated, and had a similar relationship with pupil reading achievement, factor analytic procedures were used to create a summary measure. Details of the items that were included in the factor analysis (and factor loadings) can be found in Table 6.A9. One 'attitude to reading' factor was obtained for parents of both First and Fifth class pupils. The correlation (.25 at each grade level) between parental attitudes to reading and pupil achievement is positive and moderate (Table 6.19).

Table 6.19: Correlations between parental attitude to reading and pupil achievement

	N	r	t	p
1st class	3273	**.245**	14.571	<.001
5th class	3538	**.251**	5.695	<.001

Significant correlations in bold. For help in interpreting table see page 36.

As described in Chapter 5, when pupil attitudes to reading were examined, two factors emerged at First class, and four at Fifth class. Table 6.20 shows the relationship between parental and pupil attitudes.

Table 6.20: Correlations between parental attitude to reading and pupil attitudes

	Pupil Attitude	N	r	t	p
1st class	Reading as a social and interesting activity	3106	.075	1.905	.062
	Perceived reading ability	3106	**.065**	2.402	.020
5th class	Reading as an interesting/valuable activity	3049	**.249**	6.798	<.001
	Reading as social activity	3049	.075	1.667	.100
	Other and self perceptions of reading competence	3049	.064	1.617	.110
	Reading as a challenging exercise	3049	**.142**	3.240	.002

Significant correlations in bold. For help in interpreting table see page 36.

Correlations at First class are weak, indicating a slight tendency for pupils who see themselves as good readers to have parents who have positive attitudes to reading. Correlations between parental and pupil attitudes were slightly stronger at Fifth class. For example, there was a moderate correlation (.25) between parental attitudes to reading and pupil views on reading as an interesting and social activity, and a weak to moderate

correlation (.14) between parental attitudes and pupil views on reading as a challenging exercise. Thus, children whose parents had positive attitudes to reading tended to view reading as an interesting or valuable activity, to enjoy reading challenging materials, to be somewhat more likely to view reading as a social activity, and to perceive themselves as competent readers. Although composed of different items at each grade level, the correlations between parental attitudes and pupils' perceived ability, and their views on reading as a social activity, are almost identical at each grade level.

Parents were asked about the frequency with which they read various types of material (fiction books, non-fiction books, emails or information on the internet, magazines, newspaper articles, and other parts of newspapers) at home. Again, factor analysis was used to reduce the data, and two factors emerged for parents at each grade level (see Table 6.A10 for details). The first factor related to reading magazines and any part of newspapers, while the second related to reading fiction or non-fiction books and emails or internet material. At each grade level, the frequency with which parents read magazines or newspapers was unrelated to pupil achievement (Table 6.21). However, frequency of reading fiction or non-fiction books and emails or internet material was significantly and positively related to pupil achievement (.22 at both First and Fifth class).

Table 6.21: Correlations between parental frequency of reading certain materials and pupil achievement

	Factor	N	r	t	p
1st class	Freq. reading magazines, newspapers	3354	-.013	0.413	.681
	Freq. books, email, internet	3354	**.216**	8.549	<.001
5th class	Freq. reading magazines, newspapers	3672	.026	0.936	.352
	Freq. books, email, internet	3672	**.221**	6.783	<.001

Significant correlations in bold. For help in interpreting table see page 36.

Educational Resources in the Home

As part of the Parent Questionnaire, parents indicated which of a list of resources (encyclopaedia, dictionary, computer, internet access) were available in their home for their child's use for educational purposes. A related question asked about the availability of a quiet place to study. Most Fifth class pupils had access to a dictionary (92%) or a quiet place to study (87%), with access levels lowest for internet access (55%) and an encyclopaedia (58%). Similarly, most First class pupils had access to a quiet place to study (85%) and a dictionary (73%), while 65% had access to a computer. However, less than half had access to the internet or to an encyclopaedia (Table 6.22).

Table 6.22: Percentages of parents indicating various resources were available for their child's use for educational purposes at home

	1st class (N=3650) % Yes	5th class (N=3950) % Yes
Encyclopaedia	45.6	57.7
Dictionary	73.1	92.3
Computer	64.5	73.8
Internet access	41.6	55.1
Quiet place to study	84.9	87.0

The relationship between achievement and the availability of each of the resources was similar (i.e., pupils from homes where a given resource was available tended to achieve higher scores). Consequently, the number of resources available were summed, and when linked to achievement scores revealed a gradual increase (steeper at Fifth class) in mean achievement scores as the number of resources available increased. Mean scores of those with none of the listed resources at home were 219.4 for First class pupils and 193.2 for Fifth class pupils, while mean scores of pupils who could avail of all four resources at home were 265.9 and 271.1 (First and Fifth class, respectively) (Table 6.23).

At each grade level, pupils who had four educational resources available for use have a significantly higher mean reading score than pupils for whom no resources or only one resource was available. At Fifth class, pupils with four resources available had a significantly higher mean score than pupils who could use two or three resources at home.

Table 6.23: Availability of educational resources in the home, and pupil achievement

	1st class (N=3650)			5th class (N=3950)		
	%	Mean	SE	%	Mean	SE
0 resources	13.1	**219.4**	3.56	3.7	**193.2**	6.06
1 resource	19.7	**241.6**	3.69	16.1	**221.2**	3.14
2 resources	21.1	254.6	5.37	17.1	**239.9**	3.57
3 resources	21.5	261.3	3.43	23.7	**256.2**	2.84
4 resources (RefGroup)	24.6	265.9	2.86	39.4	271.1	1.69

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Between 13% and 15% (Fifth and First class, respectively) of pupils' parents said that their child did not have a quiet place at home in which to study or do homework (Table 6.24). Mean achievement scores of pupils who did and who did not have such a place are similar at First class. However, Fifth class pupils without a quiet place to study achieved a significantly lower mean score (223.8) than pupils with this facility (255.4).

Table 6.24: Availability of a quiet place to study at home, and pupil achievement

	1st class (N=3650)			5th class (N=3950)		
	%	Mean	SE	%	Mean	SE
Place available (RefGroup)	84.9	252.5	2.22	87.0	255.4	2.01
No place available	15.1	247.1	4.89	13.0	**223.8**	3.85

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

As can be seen from Table 6.25, as the number of books in the home increase, so too do mean achievement scores. For example, pupils with no books in their home obtained the lowest mean scores (206.9 and 187.0, for First and Fifth class, respectively), while pupils with more than 500 books obtained the highest mean scores (275.6 and 286.6, for First and Fifth class, respectively). Further, the gap in achievement between pupils with none or few books at home and those with many books is substantially larger in Fifth class than in First class. At First class, pupils with no books scored almost 69 points lower than pupils with more than 500 books at home, while the gap at Fifth class is 100 points.

Pupils with between one and 10 books in their home (the reference group in Table 6.25) have significantly lower mean scores (at both First and Fifth class) than pupils with 11 to 50 books, 51 to 100 books, 101 to 250 books, 251 to 500 books, and more than 500 books. At Fifth class, they also have a significantly higher mean score than pupils who have no books in their home.

Table 6.25: Number of books in the home, and pupil achievement

	1st class (N=3617)			5th class (N=3921)		
	%	Mean	SE	%	Mean	SE
None	1.4	206.9	5.23	1.1	**187.0**	6.34
1 – 10 books (RefGroup)	10.4	221.7	4.14	10.0	213.7	4.51
11 – 50 books	27.5	**240.7**	3.11	24.6	**235.5**	2.54
51 – 100 books	23.4	**253.6**	4.56	24.0	**250.9**	3.91
101 – 250 books	19.7	**265.9**	2.86	19.0	**265.2**	2.94
251 – 500 books	9.9	**267.2**	4.41	12.7	**274.1**	2.78
> 500 books	7.7	**275.6**	5.18	8.6	**286.6**	3.74

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

As membership of a public library might ameliorate the effects of owning few books, parents were asked if anyone in their household was a member. Parents of 76% of First class pupils and of 80% of Fifth class pupils reported that someone in their home was (Table 6.A11). Pupils from such homes achieved significantly higher scores (255.5 at First class and 256.2 at Fifth) than pupils from homes where nobody was a library member (242.6 and 235.0 for First and Fifth class, respectively).

The mean achievement of First class pupils with 10 or fewer books in their home did not vary depending on whether or not someone in the home held a library membership (Table 6.A12). However, Fifth class pupils with 10 or fewer books in the home achieved a significantly higher mean achievement score (217.1) if someone in the home was a member of a public library than if nobody was a member of a public library (202.2).

Rules for Leisure Activities

Parents were asked to indicate if they set rules regarding their child's playing of computer games and TV/DVD/video viewing (referred to hereafter as TV viewing), and if so, the types of rules. Only 4% of parents at First class and 7% at Fifth indicated that they did not have rules about their child's TV viewing (Table 6.26). Similarly, most parents (88% at First class and 86% at Fifth) had rules regarding their child playing computer games.[2]

Table 6.26: Percentage of parents indicating that they set various types of rules for watching TV/DVD/Videos, or playing computer games

	% Yes: 1st class		% Yes: 5th class	
	TV (N=3638)	Games (N=3388)	TV (N=3950)	Games (N=3848)
Have rules	95.7	88.3	92.9	86.3
- Limit time spent watching/playing	65.5	67.4	54.9	59.0
- Limit type of material watched/played	71.1	58.5	64.4	50.5
- Limit to after homework completed	70.1	58.7	66.6	59.6
- Other	8.6	10.7	8.6	7.5

Just over half of Fifth class pupils' parents and 66% of First class pupils' parents said that they set rules limiting the amount of time their child spent watching TV. Approximately two-thirds of pupils at each grade level were allowed to watch TV only

[2] Pupils who did not have computer games (6% at First class and 2% at Fifth) are excluded from analyses.

after completing their homework, and had rules about the type of material they watched. The most commonly reported rule for computer games was to limit the amount of time spent playing games (67% of parents of First class pupils and 59% of Fifth). Further, over half of First and Fifth class pupils were not allowed to play computer games until after completing their homework. However, only half of Fifth class pupils and 59% of First class pupils were limited in the types of computer games they were allowed to play.

First class pupils whose parents reported that they had rules about watching TV obtained significantly higher achievement scores than pupils whose parents did not have such rules (252.6 versus 234.1) (Table 6.A13). At Fifth class, the difference (252.3 versus 241.0, for those who had and did not have such rules, respectively) was not significant. The mean achievement scores of First and Fifth class pupils whose parents had rules about playing computer games do not differ significantly from the scores of pupils whose parents did not have rules, or who did not have access to computer games (Table 6.A14).

At each grade level, pupils whose parents had rules regarding the amount of time spent watching TV, and regarding the types of materials watched, scored significantly higher than pupils whose parents did not have such rules. For example, pupils whose parents had rules regarding amount of time have mean scores of 255.9 and 259.9 (First and Fifth class, respectively) compared to means of 244.0 and 240.9 (First and Fifth class, respectively) for pupils whose parents did not limit the amount of time they spent watching TV (Table 6.A15). Similarly, pupils whose parents limited the type of material they watched achieved mean scores of 256.8 (First class) and 258.1 (Fifth class), compared to 239.5 and 239.2 for First and Fifth class pupils whose parents did not have rules about the type of material their child viewed (Table 6.A16). In contrast, rules about completing homework before watching TV were unrelated to pupil achievement (Table 6.A17).

Relationships between parental rules for computer games and achievement scores are similar to those for TV and achievement scores. At each grade level, significantly higher mean scores are associated with rules limiting the amount of time spent playing games and rules limiting the type of game played. Further, rules about completing homework before playing computer games are unrelated to pupil achievement.

The rules relating to TV viewing were summed to see if the number of rules was related to achievement. At each grade level, pupils whose parents had three rules regarding viewing habits obtained significantly higher mean scores than pupils whose parents had no rules or one rule (Table 6.27). Similar analyses were carried out regarding the number of rules relating to computer games (see Table 6.A18). Again, at each grade level, pupils whose parents had set three rules achieved significantly higher mean scores than pupils whose parents set only one rule. At First class, pupils with two rules also achieved a significantly lower mean score than pupils with three rules, while at Fifth class, pupils with no rules achieved a significantly lower mean score.

Table 6.27: Number of rules about TV viewing, and pupil achievement

	1st class (N=3638)			5th class (N=3950)		
	%	Mean	SE	%	Mean	SE
None	4.7	**235.5**	0.66	7.8	**239.6**	6.71
One	22.6	**240.2**	1.18	28.8	**239.9**	2.87
Two	29.6	255.2	1.10	27.6	253.4	3.89
Three (RefGroup)	39.1	257.3	1.43	32.8	260.2	2.33
Four	4.1	257.6	0.87	3.0	273.9	7.03

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Educational Expectations and Planning

Parents were asked to indicate when they expected their child to finish full-time education. Expectations were high, with 63% of First class pupils' parents and 59% of Fifth class pupils' parents expecting that their child would complete a degree course (Table 6.28). A further 19% at each grade level expected their child would complete a PLC course or receive a diploma or certificate from an Institute of Technology, while less than half a percent expected that their child would not complete Junior Cycle. (Due to the extremely small numbers and large standard errors in the latter category, it is not possible to make any definitive statement about statistical differences in mean scores between this and other groups). In general, higher parental expectations were associated with higher mean achievement scores. For example, at each grade level, pupils whose parents expected them to complete a degree obtained the highest mean scores (264.4 at First class and 269.1 at Fifth class), and such pupils performed significantly better than those expected to leave the education system after the Junior Certificate, after the Leaving Certificate, or after a PLC/certificate/diploma. Indeed, the mean score difference between the degree group and the group expected to leave school after Junior Cycle is 51 points for First class, and 69 points for Fifth class.

Table 6.28: Parents' expectations for their child's educational attainment, and pupil achievement

	1st class (N=3462)			5th class (N=3812)		
	%	Mean	SE	%	Mean	SE
Before Junior Cert.	0.2	228.9	18.33	0.4	**211.0**	16.05
Junior Cert.	0.5	**213.1**	12.51	1.4	**200.6**	7.13
Leaving Cert.	17.3	**221.7**	3.51	19.9	**216.9**	4.42
PLC/Certificate/Diploma	19.1	**242.6**	4.14	19.3	**241.0**	3.51
Third level degree (RefGroup)	62.9	264.4	2.31	59.0	269.1	1.68

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Most parents (57% at First class level and 79% at Fifth class) had decided upon a post-primary school for their child (Table 6.29). The mean scores of pupils whose parents had or had not made this decision did not vary significantly at First class. However, Fifth class pupils whose parents had not chosen a post-primary school obtained a significantly lower mean score than pupils whose parents had chosen a school (243.2 versus 254.7, respectively).

Table 6.29: Whether parents have decided on a post-primary school for their child, and pupil achievement

	1st class (N=3568)			5th class (N=3852)		
	%	Mean	SE	%	Mean	SE
Yes	57.1	253.1	2.23	78.6	**254.7**	2.40
No (RefGroup)	42.9	251.0	3.54	21.4	243.2	3.41

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Missing Data

Parent Questionnaires were not returned for 192 (5%) First class pupils or for 139 (3.4%) Fifth class pupils (Table 6.30). At First class, pupils whose parents did not return a questionnaire obtained a mean achievement score that is 33 points lower than that obtained by pupils whose parents returned a questionnaire, while at Fifth class the difference in the respective mean scores is 39 points. At each grade level, these differences are statistically significant, although these differences must be interpreted with caution due to the small numbers involved.

Table 6.30: Whether or not the Parent Questionnaire was completed, and mean achievement scores

	1st class			5th class		
	%	Mean	SE	%	Mean	SE
Completed	95.0	**251.7**	2.48	96.6	**251.3**	2.32
Missing (RefGroup)	5.0	218.4	3.99	3.4	212.3	6.48

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Summary

Approximately 80% of pupils lived with both parents, and these pupils obtained higher mean scores than those living in a lone-parent household. Slightly less than one-quarter of pupils were covered by the medical card scheme, and over 90% had at least one employed parent. Having unemployed parents, and being covered by the medical card were associated with lower achievement scores, as was having four or more siblings. Parental educational attainment was also linked to pupil achievement; pupils whose parents had not completed the Leaving Certificate tended to score below the test mean of 250, while pupils whose parents had completed Leaving Certificate (or higher) tended to score above 250.

Pupils whose parents had attended parent-teacher meetings in the year in which the survey took place have significantly higher mean achievement scores than pupils whose parents did not attend such meetings. However, excluding parent-teacher meetings, an increase in the number of visits by parents to the school was associated with a decline in pupil achievement. Many elements of the home 'atmosphere' were related to achievement, including the frequency with which children were read to before they started school, parental attitudes to reading, how frequently parents read books, and parental rules about watching TV or playing computer games. Further, the availability of certain physical resources, including an encyclopaedia, dictionary and computer, a quiet place to study, access to a public library, and having an adequate supply of books in the home were all related to higher achievement. However, just over 11% of pupils had 10 or fewer non-school books in their home. The children of between 3% and 5% of parents who did not return completed Parent Questionnaires achieved significantly lower mean scores than children whose parents returned questionnaires.

7. Classroom Environment

This chapter is divided into 11 main sections. The first section provides some background detail about teachers, including teacher gender, teaching experience and qualifications. This is followed by sections describing classroom composition (multigrade and single-grade, and class size) and the extent of teacher participation in in-career development. The fourth section describes the teaching of English in classrooms, including allocation of time, grouping practices, and teaching methods and materials used. The fifth and sixth sections describe classroom libraries and computer resources, respectively, while the seventh describes how teachers encouraged pupils to engage in English activities outside of the classroom. Section eight describes teachers' use of planning and assessment; section nine describes issues related to learning support and resource teaching; and section ten describes school 'climate'. Finally, section eleven links pupil achievement to aspects of the classroom environment, including teacher experience and the frequency with which pupils are assessed.

Almost all (98.3%) of the 181 First class teachers whose classes participated in the survey returned completed Teacher Questionnaires, as did 98.5% of the 199 Fifth class teachers whose classes participated. Teachers' responses were linked to their pupils to provide weighted population estimates for pupils. For example, responses of the 178 First class teachers are related to the 3,842 First class pupils who completed the DSRT. Thus, in this chapter we report the percentage of pupils taught by teachers exhibiting a characteristic, rather than the percentage of teachers exhibiting the characteristic.

Teachers' Backgrounds

Female teachers were in the majority at each grade level; 88% of First class and 63% of Fifth class pupils were taught by females (Table 7.1). In First class, the percentages of boys and girls taught by a female teacher were almost identical; however, in Fifth class 70% of girls, but only 57% of boys, were taught by a female teacher.

Table 7.1: Percentages of pupils, by gender, taught by male or female teachers

Grade	Gender	Female Teachers	Male Teachers
1st class (N=3805)	Girls	88.0	12.0
	Boys	88.4	11.6
	All	88.2	11.8
5th class (N=4008)	Girls	69.6	30.4
	Boys	56.5	43.5
	All	63.1	36.9

Seven percent of Fifth class pupils and 13.9% of First class pupils were taught by a teacher employed on a temporary or substitute basis, while 1.8% in First class and 0.7% in Fifth class were taught by a teacher employed on a part-time or job-share basis (see Table 7.A1 on http://www.erc.ie/naer04/e-appendix). However, if only designated disadvantaged schools are considered, 30% in First class and 6% in Fifth class were taught by a teacher employed on a temporary or substitute basis. At First class, teachers averaged 14.9 years teaching experience, compared to 17.1 years at Fifth class. Again, if only designated schools are considered, First class teachers averaged 7.4 years, while Fifth class teachers

averaged 15.6 years teaching experience (Table 7.A2). Five percent of pupils in Fifth class and 12% in First class (but 44% in First class in designated schools) were taught by a teacher with less than one year's teaching experience (Table 7.A3). At each grade level, slightly less than two-thirds of pupils were taught by a teacher with a B. Ed. (Table 7.2). The next most common teaching qualification was a Diploma for National Teaching (NT) (teachers of 20% of First class pupils and 27% of Fifth class pupils), followed by a Graduate Diploma in Education. Less common additional qualifications included a diploma in either remedial or special education or in learning support, or a Masters in Education. Other widely held, non-primary teaching qualifications included a degree other than a B. Ed. and a H. Dip. in Ed.

If only those with a B. Ed., a National Teaching Diploma, a Graduate Diploma in Education (Primary), or a primary teaching qualification from another country are considered to be qualified teachers, then the class teachers of 9% of pupils in First class and 4% in Fifth class were unqualified. In designated disadvantaged schools, the percentages were higher (12.1% of First class and 6.0% of Fifth class pupils) than in non-designated schools (8.1% and 3.3%, respectively).

Table 7.2: Percentages of pupils taught by teachers with various qualifications

	1st class (N=3805)	5th class (N=4008)
Diploma for National Teaching (NT)	19.7	27.2
B.Ed.	60.5	64.3
Undergraduate degree other than B.Ed.	23.5	16.2
Graduate Diploma in Education (Primary)	17.5	9.6
Primary teaching qual. from abroad	0.5	0.2
Higher Diploma in Education (H. Dip.)	7.2	6.5
Dip. in Remedial / Special Education / LS	8.2	2.7
Masters in Education	3.0	3.8
No primary school teaching qualification	8.7	3.7

As some teachers held multiple qualifications, column percentages sum to more than 100%.

Classroom Composition

Sixty-nine percent of First class pupils and 58% of Fifth class pupils were taught in single grade classes (Table 7.3). Of the remainder, most were taught in two-grade or three-grade classrooms, with only 4% at either First or Fifth class in four-grade classrooms. Teachers were asked to indicate how many pupils they taught at the grade level completing the NAER assessment (i.e., First or Fifth class). As a result, data on class size are available only for single-grade classes. At First class, the mean number of pupils in a single-grade class was 25.4, and class size ranged from 6 pupils in the smallest class to 35 in the largest (Table 7.A4). At Fifth class, the mean number of pupils in a single-grade class was 26.4 pupils (ranging from 11 pupils in the smallest to 36 pupils in the largest class).

Table 7.3: Percentages of pupils taught in single-grade or multigrade classes

	1st class (N=3805)	5th class (N=4008)
Single-grade	69.3	57.8
Two grades	11.6	27.1
Three grades	15.2	11.1
Four grades	3.9	4.0
Total in multigrade	30.7	42.2

In-Career Development (ICD)

Teachers were asked to indicate the number of in-career development (ICD) days they had attended in the last year, and in the last five years, that related to (a) the 1999 Primary School English Curriculum (PSEC), and (b) to other aspects of English. At each grade level, teachers had averaged slightly less than 3 days relating to the English curriculum in the last five years, including approximately half a day in the last year (Table 7.4). ICD on other aspects of English was less common, averaging less than a day in the last five years and less than half a day in the last year. Many pupils' teachers had not attended any ICD in the last five years. For example, the teachers of 22% of First class pupils had not attended ICD on the PSEC in the last five years (a figure that only falls to 10% once unqualified teachers and those qualified less than two years are excluded).

Table 7.4: Mean number of ICD days attended on the PSEC / other aspects of English, and percentage of pupils whose teachers attended no ICD on these topics

No. of days on…	attended in the past…	1st class			5th class		
		N	Mean days	% No ICD	N	Mean days	% No ICD
PSEC	5 years	3287	2.6	22.2	3584	2.8	12.3
	12 months	3287	0.4	65.8	3578	0.5	75.8
Other aspects of English	5 years	3261	0.7	65.3	3568	0.5	75.9
	12 months	3247	0.3	77.1	3578	0.2	82.2

Teachers were asked about their satisfaction with aspects of the implementation of the PSEC. At each grade level, teachers of over three-quarters of pupils expressed satisfaction with the amount and the quality of ICD available to them (Table 7.5). Satisfaction levels were higher concerning the work of the Primary Curriculum Support Programme (PCSP) *Cuiditheoirí*, with teachers of only 5% of First class pupils and 9% of Fifth class pupils dissatisfied or very dissatisfied with the work of *Cuiditheoirí*. However, the teachers of 16% of First and Fifth class pupils were dissatisfied with other school-based support in implementing the curriculum.

Table 7.5: Percentages of pupils whose teachers reported satisfaction with various aspects of the implementation of the PSEC

		Very satisfied	Satisfied	Dissatisfied	Very dissatisfied
	N	*The amount of in-career professional development available to you*			
1st class	3459	12.2	68.0	16.7	3.0
5th class	3745	13.7	62.3	22.8	1.2
		The quality of in-career professional development available to you			
1st class	3377	15.7	73.4	10.9	0.0
5th class	3745	17.2	68.3	13.3	1.2
		The work of the PCSP Cuiditheoirí[1]			
1st class	2547	26.7	68.0	3.6	1.8
5th class	3180	24.5	66.1	8.9	0.5
		Other school based support in implementing the curriculum			
1st class	3275	17.9	66.2	13.4	2.4
5th class	3560	17.0	66.5	13.0	3.5

[1] Responses of those who had not worked with a PCSP *Cuiditheoir* are excluded from analyses.

Teachers were asked if they believed that the curriculum documents were useful with respect to a number of aspects of teaching English, and if they felt that coverage of each aspect in PCSP ICD had been adequate. On all except one of the 16 aspects of the curriculum documents listed, First class teachers tended to be more positive than teachers at Fifth class. The exception was the perceived usefulness of the documents in relation to teaching grammar, which teachers of 42% of pupils at both grade levels rated as useful (Table 7.6). At both grade levels, the teachers of at least three-quarters of pupils rated as useful the curriculum documents relating to developing oral language, to teaching writing processes, and to conceptualising English as four strands. Teachers of at least half of pupils at each grade level rated the documents as useful on the following topics: teaching purposes and forms of writing; teaching reading comprehension; assessing reading; assessing writing; teaching children's literature; and achieving a balance between literary, informational, and representational text. Identifying reading difficulties and dealing with reading difficulties were the topics for which the curriculum documents were seen as least useful.

Table 7.6: Percentages of pupils whose teachers reported that the curriculum documents were useful in relation to various aspects of teaching English

	1st class (N=3805)	5th class (N=3999)
Developing oral language	89.0	83.9
Teaching word meanings (vocabulary)	51.0	45.0
Teaching phonics	63.5	48.4
Teaching grammar	41.5	41.7
Teaching purposes and forms of writing	75.2	71.4
Teaching word identification	59.1	–
Developing spelling	57.0	39.9
Teaching reading comprehension	68.3	62.3
Teaching writing processes	77.8	76.2
Assessing reading	64.1	62.8
Assessing writing	60.8	51.7
Identifying reading difficulties	39.5	31.0
Dealing with reading difficulties	38.5	27.4
Teaching children's literature	60.6	60.1
Conceptualising English as four strands	80.5	75.9
Balance between oral language, reading, and writing development	80.0	72.8
Achieving balance between literary, informational and representational text	67.3	60.3

Teaching English

In this section, aspects of the teaching of English are described, including the time allocated to English lessons, activities and materials used in English lessons, and grouping practices.

Time Allocated to English Lessons

Based on teacher responses, First class pupils spent an average of 5 hours and 4 minutes a week in English lessons, compared to 4 hours and 39 minutes in Fifth class (Table 7.7). In First class, pupils in schools designated as disadvantaged spent an average of 41 minutes less in English lessons than pupils in non-designated schools. In Fifth class, this pattern is

reversed, with pupils in designated schools spending an average of 22 minutes more time in English lessons than pupils in non-designated schools. However, there are a large number of missing responses to this item, particularly at First class (relating to 17% of pupils in non-designated schools and 26% in designated schools) but also at Fifth class (relating to 12% of pupils in non-designated and 8% in designated schools).

Table 7.7: Mean number of minutes per week spent teaching English, overall and by schools' designated disadvantaged status

Disadv.	1st class			5th class		
	N	Mean mins	Range	N	Mean mins	Range
No	2698	310.1	110 – 600	2953	275.6	150 – 600
Yes	441	268.7	150 – 600	549	297.8	200 – 600
Total	3139	304.3	110 – 600	3502	279.1	150 - 600

Both First and Fifth class teachers estimated that over 80% of time in their last English lesson had been spent on instruction (Table 7.8). Classroom management (e.g., calling for attention) took up 11% of lesson time at First class and 9% at Fifth class, while administration (e.g., handing out materials) took up 8% of time at both grade levels. At First class, there were few differences between how lesson time was divided between these three activities in designated disadvantaged and non-designated schools. However, at Fifth class, 84% of lesson time was spent on actual instruction in non-designated schools, compared to 77% in designated schools.

Table 7.8: Percentage of last English lesson allocated to management, administration and instruction, overall and by schools' designated disadvantaged status

Disadv.	1st class				5th class			
	N	Management	Admin	Instruction	N	Management	Admin	Instruction
No	3172	10.8	8.3	80.9	3364	8.9	7.2	83.9
Yes	490	11.9	6.5	81.7	533	12.0	11.3	76.7
All	3662	11.0	8.0	81.0	3897	9.3	7.8	82.9

Assuming that the last English lesson taught was a reasonable proxy for an average lesson, the percentage of time spent on instruction can be linked to the number of minutes spent teaching English per week to show the average weekly *instruction time* for English. As shown in Table 7.9, the average weekly instruction time for English was 249.6 minutes (approximately 50 minutes a day) at First class and 229.5 (almost 46 minutes a day) at Fifth class. First class pupils in designated schools averaged 22 minutes less instruction time per week than pupils in non-designated schools, while at Fifth class, pupils in designated schools averaged almost 15 minutes less than pupils in non-designated schools. Thus, even though Fifth class pupils in designated schools spend more *time* in English lessons than pupils in non-designated schools, they receive less English *instruction*.

Table 7.9: Mean number of minutes per week spent on instruction in English lessons, overall and by schools' designated disadvantaged status

Disadv.	1st class			5th class		
	N	Mean mins	Range	N	Mean mins	Range
No	2664	252.1	48 – 466	2929	231.7	45 – 432
Yes	332	230.1	113 – 540	528	217.1	30 – 357
Total	2995	249.6	48 - 540	3457	229.5	30 – 432

Methods, Activities and Resources Used

Teachers were asked if they preferred to use the same teaching methods for all pupils when teaching a First or Fifth class group, or if they preferred to vary teaching methods for different pupils. Responses indicated that 51.3% of Fifth class pupils and 20.4% of First class pupils were in classes where their teacher preferred to use the same method for all pupils (Table 7.A5). Thirty percent of First class pupils were in classes where adult volunteers were used to help pupils with reading, whereas the equivalent percentage for Fifth class pupils was only 6.3% (Table 7.A6).

Teacher reports indicated that most pupils frequently engaged in silent reading and reading aloud to the class, with paired reading a less common feature of the classroom (Table 7.10). Close to 90% of pupils at each grade level engaged in silent reading on a daily or weekly basis, while reading aloud to the class was even more common. Listening to the teacher read narrative text, listening to the teacher read informational text, and paired reading were more frequently engaged in by First than by Fifth class pupils. However, although almost half of First class pupils engaged in paired reading at least once or twice a week, 24% did so no more than once or twice a term, if at all. While over 60% of pupils at each grade level engaged in creative writing at least once or twice a week, 8% of First class pupils did so no more than once or twice a term, if at all. Neither writing in response to reading nor informative writing was particularly common in First class, with just under half of pupils engaging in either type of writing on an at least weekly basis. Both activities were engaged in slightly more frequently by Fifth class pupils. Finally, Fifth class teachers, who were asked how often their pupils read other pupils' writing, said that only one-quarter did so on a weekly basis.

Table 7.10: Percentages of pupils whose teachers indicated how frequently pupils engage in various reading and writing activities during English classes[2]

	1st class					5th class				
	N	Most days	Weekly	Monthly	Less freq.	N	Most days	Weekly	Monthly	Less freq.
Silent reading	3750	46.3	40.2	11.3	2.2	4001	47.1	41.4	8.2	3.3
Oral reading to the class/groups	3805	71.3	20.4	6.2	2.0	3974	68.5	29.1	1.6	0.8
Listening to teacher read narrative text	3842	58.0	38.7	3.3	0.0	3959	25.8	44.3	25.0	4.8
Listening to teacher read inform'l text	3786	31.1	40.5	27.0	1.4	4008	19.0	46.5	21.2	13.3
Paired reading	3666	16.9	32.2	26.7	24.2	3857	6.6	15.5	17.6	60.3
Creative writing	3783	14.7	51.5	25.8	8.1	4001	8.5	52.5	38.8	0.3
Informative / expository writing	3782	10.8	38.6	37.2	13.4	3999	12.4	51.6	30.3	5.8
Writing in response to reading	3758	8.4	40.0	33.4	18.3	4001	23.9	48.7	22.6	4.7
Reading other pupils' writing	–	–	–	–	–	3934	5.6	21.0	40.3	33.1

[2] Teachers were presented with a 5-point scale ('most days', 'once or twice a week', 'once or twice a month', 'once or twice a term' and once or twice a year or less'). The scale was compressed into a 4-point scale to facilitate side-by-side presentation of data from First and Fifth class teachers. A similar compressing of responses has been used in a number of other tables in this chapter.

Teachers of almost all First class pupils allocated time to develop phonemic awareness in their pupils, to help them identify onset and rime, and to teach them about graphic or phonic correspondences at least once or twice a week (Table 7.11). Over 90% of First class pupils were taught about applying semantic and syntactic cues, and 84% about comprehending narrative texts at least weekly. Only close to half of First class pupils were taught about developing reference skills or comprehending expository/informational texts on a weekly basis, while instruction on comprehending documents/representational text was even less common. However, it should be noted that some activities (such as developing reference skills) may form part of lessons in other curriculum areas.

Table 7.11: Percentage of First class pupils whose teachers indicated how frequently they provided instruction on selected aspects of English

	N	Most days	Once or twice a week	Once or twice a month	Once or twice a term	Once or twice a year or less
Developing phonemic awareness	3793	70.5	27.2	2.3	0.0	0.0
Onset and rime in written words	3805	62.4	35.9	1.4	0.4	0.0
Learning grapho/phonic correspondences	3805	59.3	37.2	3.1	0.4	0.0
Applying semantic cues	3627	48.2	44.9	3.8	3.1	0.0
Applying syntactic cues	3695	48.1	43.5	5.4	0.0	3.0
Comprehending narrative texts	3684	34.3	49.6	14.0	1.7	0.4
Developing reference skills	3739	13.7	38.1	29.8	11.5	6.9
Comprehending expository texts	3793	13.2	38.4	37.3	10.1	0.9
Comprehending documents/ representational text	3683	5.9	32.1	30.9	17.1	14.1

Over two-thirds of Fifth class pupils were taught word-attack skills, comprehension strategies or reference skills on most days, or once or twice a week (Table 7.12). Study strategies were also a reasonably regular feature of English instruction in Fifth class, with just over half of pupils being taught them at least once a week. Teaching pupils how to interpret diagrammatic text was slightly less common; 39% of Fifth class pupils were taught how to do so on an at least weekly basis.

Table 7.12: Percentage of Fifth class pupils whose teachers indicated how frequently they provided instruction on selected aspects of English

	N	Most days	Once or twice a week	Once or twice a month	Once or twice a term	Once or twice a year or less
Learning word-attack skills	3975	29.0	39.2	25.7	4.6	1.5
Learning comprehension strategies	4008	27.8	39.5	28.9	3.8	0.0
Developing reference skills	4001	26.8	45.7	22.0	2.7	2.8
Learning study strategies	4008	18.9	33.3	29.8	11.3	6.7
Interpreting diagrammatic texts	4008	11.1	27.7	36.9	12.9	11.3

English lessons in First class made very frequent use of published reading schemes, workbooks, and worksheets, and infrequent use of reference, document or informational materials (Table 7.13). Almost all First class pupils used published reading schemes and workbooks and worksheets at least a few times a week (with most doing so on a daily basis), while over half used documents (e.g., maps or menus) and informational materials

(e.g., newspapers) no more than once or twice a term, if at all. Children's literature was reasonably widely used, although 16% of First class pupils used it no more than once or twice a month. Published reading schemes, children's literature and workbooks and worksheets were also frequently used in Fifth class lessons. Three-quarters of pupils used reference materials on an at least weekly basis. However, over three-quarters used documents and informational materials no more than once or twice a month, if at all.

Table 7.13: Percentages of pupils whose teachers indicated how frequently they used various materials during English classes

	1st class					5th class				
	N	Most days	Weekly	Monthly	Less freq.	N	Most days	Weekly	Monthly	Less freq.
Published Reading Schemes	3773	92.0	4.6	1.5	1.9	3781	62.3	27.4	4.6	5.6
Children's literature	3796	49.4	34.9	14.3	1.4	3937	29.6	44.2	16.1	10.1
Reference materials	3778	5.1	28.0	39.2	27.6	3967	26.7	49.3	21.2	2.8
Informational materials	3721	1.2	8.3	34.8	55.6	3836	1.5	20.8	52.9	24.8
Workbooks or worksheets	3798	66.2	31.2	0.9	1.6	3919	28.2	52.6	17.8	1.5
Documents	3764	0.1	14.7	32.4	52.9	3895	2.2	19.5	42.0	36.3

Teachers were presented with five activities and asked how frequently they engaged in each, to prepare their pupils for reading. Identifying new words and meanings was the only activity that over half of pupils at each grade level engaged in on most days, at the start of an English lesson (Table 7.14). The teachers of half of First class pupils (and 45% at Fifth class) discussed pupils' prior knowledge of a topic on most days before reading. However, teachers of 40% of First class pupils and of 36% of Fifth class pupils engaged in setting goals for reading no more than once or twice a month.

Table 7.14: Percentages of pupils whose teachers indicated how frequently they engaged in various activities to prepare pupils for reading

	1st class					5th class				
	N	Most days	Weekly	Monthly	Less freq.	N	Most days	Weekly	Monthly	Less freq.
Discuss knowledge before reading	3805	50.1	34.0	8.3	7.6	3982	44.8	41.6	10.4	3.3
Identify new words and their meanings	3805	75.1	17.5	7.4	0.0	3950	59.2	31.3	8.2	1.3
Set goals for reading	3563	33.7	26.7	18.6	21.0	3850	27.0	36.8	23.9	12.3
Predict what might happen in a story	3805	44.8	40.1	14.2	0.9	3893	30.7	41.0	22.2	6.1
Preview the text before reading	3760	32.3	40.7	15.7	11.3	3919	21.1	46.7	18.3	14.0

Teachers of First class pupils engaged pupils in a variety of activities to check comprehension while they were reading. On most days, at least 65% of pupils were asked by their teacher to check their understanding of what they were reading, to ask questions to clarify comprehension problems, to self-correct reading errors, and to use context cues to decode new words (Table 7.15). The only activity Fifth class pupils were expected to

engage in on most days was to check their own understanding of the text. However, at least two-thirds were asked to check earlier predictions, to make generalizations and inferences, and to re-read problematic parts at least once or twice a week. Teachers asking pupils to alter their expectations while reading was relatively uncommon at either grade level; 34% of First class and 48% of Fifth class pupils were asked to do so no more than once or twice a month.

Table 7.15: Percentages of pupils whose teachers indicated how frequently they engaged pupils in various activities to check comprehension during reading

	1st class					5th class				
	N	Most days	Weekly	Monthly	Less freq.	N	Most days	Weekly	Monthly	Less freq.
Check earlier predictions	3718	44.1	38.5	10.6	6.9	3898	20.7	46.1	24.2	9.0
Check their own understanding of text	3805	67.2	25.6	1.9	5.3	3968	62.3	30.5	5.4	1.8
Alter expectations	3548	27.0	38.6	18.6	15.8	3761	14.8	37.3	33.9	14.1
Ask questions to clarify problems	3656	72.6	24.2	3.2	0.0	–	–	–	–	–
Self-correct errors	3780	73.7	17.0	6.7	2.6	–	–	–	–	–
Use context cues to decode new words	3774	65.0	29.2	3.7	2.1	–	–	–	–	–
Make generalisations and inferences	–	–	–	–	–	3920	26.3	42.7	23.5	7.5
Re-read problematic parts	–	–	–	–	–	3947	45.0	38.5	11.6	4.9

Teachers were also asked how often they engaged pupils in a variety of activities in response to what they had read (with slightly different activities listed for First and Fifth class teachers). The activity engaged in with the highest frequency by First class pupils was checking understanding of key details in a text (60% did so on most days) (Table 7.16). At least 30% also engaged in the following activities on most days: identifying the main elements of a story; relating their own experience to the text; recalling events and details; orally summarising what was read; and, engaging in teacher-led discussion about what was read. Activities engaged in less frequently by First class pupils included discussing the characteristics of different genres, dramatizing stories, diagramming story content, and engaging in pupil-led discussion (well over half of pupils did so no more than once or twice a month).

Over half of Fifth class pupils engaged in teacher-led discussion about what was read, or identified the theme of a story on most days. Other activities engaged in by at least 70% of pupils at this level on a daily or weekly basis were relating their own experience to the text, orally summarizing what was read, looking for cause-effect relationships, and identifying links between characters or events. Fifth class pupils were least likely to engage regularly in diagramming story content, dramatizing stories, or studying the style or structure of a text.

Table 7.16: Percentages of pupils whose teachers indicated how frequently they engaged pupils in various activities in response to what they read

	1st class					5th class				
	N	Most days	Weekly	Monthly	Less freq.	N	Most days	Weekly	Monthly	Less freq.
Identify the main elements in a story	3767	43.1	38.1	15.9	3.0	–	–	–	–	–
Identify the theme of a story	3734	28.5	45.3	20.4	5.9	3971	54.6	39.3	5.4	0.7
Relate own experience to the text	3757	31.7	42.0	24.2	2.1	3922	30.0	42.0	24.4	3.6
Discuss characteristics of different genres	3631	7.0	25.3	39.0	28.6	3886	12.2	39.2	33.7	14.9
Recall details and events	3802	44.3	47.2	8.1	0.5	–	–	–	–	–
Check understanding of key details in text	3805	60.3	36.1	0.7	2.8	–	–	–	–	–
Summarise orally	3805	31.5	44.4	22.1	2.0	4008	28.4	42.7	23.2	5.7
Dramatise stories	3791	3.6	16.2	40.5	39.7	3921	3.4	8.7	27.5	60.4
Diagram story content	3567	2.7	11.6	26.2	59.4	3807	1.7	6.0	22.2	70.1
Teacher-led discussion	3796	30.4	38.1	26.1	5.5	4008	56.3	30.8	12.1	0.9
Pupil-led discussion	3661	8.2	27.3	29.2	35.3	3920	18.0	39.7	21.6	20.6
Look for cause-effect	–	–	–	–	–	3940	19.9	53.4	21.0	5.7
Organise information	–	–	–	–	–	3943	6.8	27.3	50.9	15.0
Examine solutions to problems in the text	–	–	–	–	–	3967	14.5	35.8	39.4	10.3
Compare and contrast	–	–	–	–	–	4004	19.0	38.6	35.9	6.5
Identify links	–	–	–	–	–	3894	17.4	57.4	17.3	7.8
Evaluate opinions/arguments	–	–	–	–	–	3942	19.6	48.2	20.9	11.3
Study style/structure	–	–	–	–	–	3938	4.4	23.5	31.7	40.4

Grouping Practices

Most pupils (69% in First and 87% in Fifth class) engaged in whole-class activities during most English lessons (Table 7.17). A further 27% of First class pupils and 12% of Fifth class pupils engaged in whole-class activities for at least some lessons. Assigning different tasks to large or small groups of pupils was relatively common, with over three-quarters of First and Fifth class pupils engaging in such tasks in at least some lessons. Assigning pairs of pupils to work together was also relatively common, although 22% of First class and 34% of Fifth class pupils were hardly ever or never paired for English lessons. Teacher-pupil conferencing for individual feedback/instruction was very common among First class teachers; less than 1% of First class pupils were never taught in this manner. However, only 9% of Fifth class pupils experienced teacher-pupil conferencing in most English lessons, while 33% hardly ever or never experienced it, although it is a central component of the writing process, as outlined in the PSEC.

Table 7.17: Percentages of pupils whose teachers reported the frequency with which various grouping practices were used in English lessons

		Most lessons	Some lessons	Hardly ever	Never
	N	The whole class* is engaged in the same lesson/activity			
1st class	3805	69.1	26.7	4.2	0.0
5th class	3999	86.9	11.8	0.0	1.3
		Large / small groups of pupils are assigned different tasks			
1st class	3796	11.9	68.6	17.0	2.6
5th class	3979	5.7	70.3	21.4	2.6
		Pairs of class pupils work together			
1st class	3796	6.8	70.9	19.6	2.7
5th class	3870	1.8	64.2	24.6	9.4
		Teacher-pupil conferencing for individual feedback / instruction			
1st class	3736	28.1	59.1	12.1	0.7
5th class	3995	8.6	58.5	28.5	4.4

* In the case of multigrade classrooms, 'whole class' refers to First or Fifth class pupils only.

Up to one in five pupils (13.8% in First and 19.8% in Fifth class) were not grouped for English lessons (Table 7.A7). Of the remainder, 23.6% of First class pupils and 20.3% in Fifth class always stayed in the same group for English lessons. Of those whose teachers used small-group teaching, 62.7% of First class pupils and 76.2% of Fifth class pupils were placed in mixed-ability small groups by their teachers, while the remainder were placed in similar-ability groups (Table 7.A8).

Teachers who taught multigrade classes were asked how often they grouped pupils from First or Fifth class (as appropriate) with pupils from other classes. No First class pupils were always grouped with other classes, while at Fifth class, 16.8% were always grouped in this way (Table 7.A9). Over two-thirds (69.5%) of First class and over half (54.9%) of Fifth class pupils were sometimes grouped with other classes.

Homework

At both grade levels, over three-quarters of pupils received homework four times a week (Table 7.18). Seven percent of First class pupils and 11% of Fifth class pupils received homework every day, while a small minority (just over 1% in First class and 4% in Fifth class) received homework once or twice a week.

Table 7.18: Percentages of pupils who received homework on one, two, three, four or five days a week

	N	One	Two	Three	Four	Five
1st class	3797	0.3	1.0	5.1	86.2	7.4
5th class	4008	1.0	3.4	7.9	76.5	11.3

Classroom Libraries

In First class, the average number of class library books per pupil was 14.4, compared to 16.2 in Fifth class (Table 7.19). However, there was considerable variation across classrooms, with a small proportion of pupils at each grade level having few or no books in a class library, while between 2% and 4% (Fifth and First class, respectively) had over 100

books per pupil in their class library. At First class, an average of 3.1 books per pupil had been added to the class library since the start of the school year, while, at Fifth class, an average of 2.7 per pupil had been added. At both grade levels, the majority of class library books were fiction. Twenty percent of class library books at Fifth class were non-fiction (e.g., history or biography), while 15% were reference materials. At First class, the percentage of books in class libraries that were categorised as reference materials was slightly lower (8%), while non-fiction comprised 17% of materials. Again, there was considerable variation across classrooms.

Table 7.19: Size and composition of class libraries

	1st class				5th class			
	N	Mean	Min	Max	N	Mean	Min	Max
No. of class library (CL) books per pupil	3511	14.4	1	108	3760	16.2	0	400
No. of new CL books per pupil	3479	3.1	0	25	3729	2.7	0	15
% CL that is fiction	3781	75.4	30	100.0	3894	65.4	0.0	95.0
% CL that is non-fiction	3738	16.6	0.0	50.0	3894	19.7	8.0	82.0
% CL that is reference	3738	8.3	0.0	40.0	3901	14.6	0.0	100.0

Use of Computers

Up to 30% of pupils in both First and Fifth class were taught by teachers who did not use a computer when teaching English reading or writing (Table 7.20). In First class, computers were most commonly used for teaching basic word skills (e.g., phonics and spelling) and to teach writing skills using word processors or publishing software, while 27% of all First class pupils used computers to learn higher order reading skills. Use of computers to teach information retrieval skills at First class was rare. At Fifth class level, most pupils (73%) used computers in English lessons to learn writing skills. Other uses were less common, with approximately one-quarter using computers to learn basic word skills, information retrieval skills, or higher order reading skills.

Table 7.20: Percentages of pupils whose teachers indicated how computers are integrated into English instruction

	1st class (N=3805)		5th class (N=3980)	
	% Yes	% No	% Yes	% No
Use computers in English lessons	69.8	30.2	73.5	26.5
Use computers to …				
- teach basic word skills (e.g., phonics)	56.3	43.7	27.1	72.9
- teach higher order reading skills	26.7	73.3	23.8	76.2
- teach writing skills using word processing / publishing software	42.0	58.0	72.5	27.5
- teach information retrieval skills using web-based resources	2.5	97.5	28.2	71.8

Although most teachers used computers in English lessons, few used them on a regular basis. Approximately one-third of pupils, in both First and Fifth class, rarely or never used computers as part of English lessons (Table 7.21). In roughly half of cases, pupils used computers in English lessons a few times a month, while only a small minority

(7% in First class and 1% in Fifth class) used computers on a daily basis as part of English lessons.

Table 7.21: Percentages of pupils whose teachers indicated the frequency with which pupils used computers as part of English instruction

	N	Daily	A few times a week	A few times a month	Rarely or never
1st class	3805	7.0	13.5	46.1	33.5
5th class	3981	1.2	10.3	51.9	36.5

English Activities Outside the Classroom

Almost all First class pupils had been encouraged by their teachers to seek help from their parents with learning new words and to engage in paired or shared reading with them (Table 7.22). Most (83%) had also been encouraged to discuss a book they had read with their parents, while close to three-quarters had been encouraged to read a book for enjoyment and to visit a public library. Far fewer Fifth class pupils (48%) had been encouraged to engage in paired or shared reading with their parents, while 59% had been encouraged to discuss a book they had read with them. Over three-quarters had been encouraged to visit a public library or to read a book for enjoyment.

Table 7.22: Percentages of pupils whose teachers indicated that they encouraged pupils to engage in various English-related activities outside school

	1st class			5th class		
	N	% Yes	% No	N	% Yes	% No
Paired / shared reading with parents	3800	91.5	8.5	3787	47.9	52.1
Discuss a book with parents	3757	82.6	17.4	3768	58.6	41.4
Visit a public library	3719	72.5	27.5	3894	76.1	23.9
Buy a book to read for enjoyment	3714	75.0	25.0	3916	85.6	14.4
Seek help from parents with new words	3745	94.6	5.4	–	–	–

Planning and Assessment

Although DES guidelines (rule 126 of Rules for National Schools, [Department of Education, 1965]) for teachers indicate that teachers should prepare short-term schemes for pupils on a weekly basis, only 45% of First class pupils and 29% of Fifth class pupils were in classes where teachers did so for English (Table 7.23). At the time of writing (October, 2005), changes to rule 126 have been agreed for the 2006/07 school year, so that teachers who have completed their probation will only need to prepare short-term schemes on a fortnightly basis. However, even using this looser criterion, between 13% and 17% (First and Fifth class, respectively) of pupils were taught by teachers who did so less frequently.

Table 7.23: Percentages of pupils whose teachers indicated various frequencies of preparing short-term schemes of work for English

	N	At least weekly	Fortnightly	Monthly	Less often
1st class	3790	44.8	42.3	8.9	4.0
5th class	3984	29.3	53.7	11.0	6.0

Rule 126 also indicates that long-term schemes should be prepared annually (to be amended to termly or annually from 2006/07). However, a sizeable minority of pupils (16% in First and 10% in Fifth class) were taught by teachers who prepared long-term schemes on an at least monthly basis, while most (over 80%) were taught by teachers who prepared long-term schemes on a term by term or annual basis (Table 7.24).

Table 7.24: Percentages of pupils whose teachers indicated various frequencies of preparing long-term schemes of work for English

	N	At least monthly	Term by term	Annually	Less often
1st class	3771	15.9	45.4	35.8	2.8
5th class	3987	10.2	40.5	44.6	4.7

Assessing pupils' classwork and administering teacher-made tests were by far the most frequently used methods for assessing pupils' progress in English reading and writing (Tables 7.25 and 7.26). In First class, 95% of pupils were assessed weekly based on their classwork, while 86% were assessed weekly using a teacher-made test. Similarly, more than 90% of Fifth class pupils were assessed weekly using these methods. Another frequent form of assessment was the use of structured observations, used by the teachers of approximately half of pupils in both First and Fifth classes on a weekly basis. Sixty-six percent of First class pupils were assessed using teacher-made checklists on an at least monthly basis, as were 52% of Fifth class pupils, while over one-third of pupils at each grade level were assessed at least monthly using progress tests or checklists that accompanied reading schemes.

Other forms of assessment were less frequent. As might be expected, most pupils were administered standardised tests once or twice a year, but approximately 5% of pupils at each grade level were never assessed using standardised tests. Teachers of one third of First class pupils indicated that they never used early screening tests (although, of course, their pupils may already have been assessed in this manner by their teachers in Senior Infants), while teachers of 58% of pupils indicated that they used such tests once or twice a year. Curriculum profiles were the types of assessment least likely to be used at either grade, with teachers of over half of pupils at each grade level never using profiles to assess pupils.

Table 7.25: Frequency with which First class pupils' progress in English was assessed

	N	Weekly	Monthly	Once / twice a term	Once / twice a year	Never
Teacher-made test	3779	86.1	9.4	2.5	1.6	0.4
Teacher-made checklists	3626	15.7	49.8	24.6	6.1	3.9
Structured observations	3575	48.8	31.0	15.0	1.5	3.8
Pupils' classwork	3769	94.6	3.9	1.3	0.1	0.0
Progress tests / checklists with reading schemes	3630	9.9	31.5	32.3	11.9	14.4
Standardised group tests	3694	0.3	0.4	6.2	87.9	5.2
Early screening tests	3434	0.9	0.7	7.2	57.8	33.4
Curriculum profiles	3193	0.7	6.3	9.9	29.4	53.7

Table 7.26: Frequency with which Fifth class pupils' progress in English was assessed

	N	Weekly	Monthly	Once / twice a term	Once / twice a year	Never
Teacher-made test	3976	91.9	5.3	2.4	0.3	0.1
Teacher-made checklists	3493	21.7	30.6	18.0	11.8	17.9
Structured observations	3825	55.2	28.3	7.9	4.6	4.0
Pupils' classwork	3787	94.7	5.3	0.0	0.0	0.0
Progress tests / checklists with reading schemes	3647	10.2	23.9	18.5	13.3	34.1
Standardised group tests	3908	2.1	0.5	6.0	87.3	4.1
Curriculum profiles	3417	0.0	3.8	13.0	24.1	59.1

Learning Support and Resource Teaching

Slightly less than half of pupils at both First and Fifth class were taught by teachers who had contributed to the development of their school policy on the provision of learning support for English (44.5% and 49.5%, respectively) (Table 7.A10). Further, teachers of only 16% to 18% of pupils described themselves as very familiar with the DES's LSG, while teachers of almost one in five described themselves as not familiar with the guidelines (Table 7.27).

Table 7.27: Percentages of pupils whose teachers indicated how familiar they were with the Learning-Support Guidelines

	N	Very familiar	Somewhat familiar	Not familiar
1st class	3784	16.4	63.9	19.7
5th class	3980	18.2	63.3	18.4

Given the large proportions of teachers who had no involvement in the development of their school policy on the provision of learning support for English, and who were unfamiliar with the LSG, it is perhaps not surprising that only a minority of teachers felt there was complete integration between a pupil's learning in a class setting and when with a learning-support or resource teacher. As shown in Table 7.28, the teachers of almost two-thirds of pupils believed there was *some* integration, but teachers of only 9% to 13% (First and Fifth class, respectively) believed there was complete integration. A minority of pupils were taught by teachers who reported that they did not know to what extent pupil learning was integrated across the different contexts, suggesting that there is little, if any, integration for pupils taught by these teachers. Combining these responses with those of teachers who reported no or a little integration, it can be concluded that there is little or no integration between pupil learning in a classroom and learning-support setting in the case of 26% of First class pupils and of 29% of Fifth class pupils.

Table 7.28: Percentages of pupils whose teachers indicated various degrees of integration between pupils' learning in class and from a learning-support/resource teacher

	N	Complete integration	Some integration	A little integration	No integration	Not known
1st class	3464	13.1	60.7	14.3	3.0	8.9
5th class	3345	9.0	62.0	20.8	5.9	2.2

Teachers were asked to identify activities they engaged in to support pupils who were in receipt of learning support. As teachers of 7.6% of First class pupils and of 21.6% of Fifth class pupils indicated that none of their pupils were in receipt of learning support in English, these are excluded from the responses presented in Table 7.29. At each grade level, the teachers of approximately half of pupils met the learning-support teacher once or twice a term to set learning targets and plan learning activities. However, teachers of one quarter of Fifth class pupils and of 32% of First class pupils met the learning-support teacher to engage in such activities no more than once or twice a year, if at all. Teachers of close to half of First class pupils, but of only 30% of Fifth class pupils, indicated that they implemented agreed learning activities for pupils in receipt of learning support on an at least weekly basis, while just over one quarter at both grade levels indicated that they rarely or never did so.

Table 7.29: Percentages of pupils' teachers indicating how frequently they engage in various activities with pupils in receipt of learning support for English

	1st class					5th class				
	N	Most days	Weekly	Each term	Less freq.	N	Most days	Weekly	Each term	Less freq.
Meet LS teacher to set targets / activities	3400	6.0	11.6	50.2	32.2	3070	5.7	13.8	55.4	25.1
Implement agreed learning activities	3337	24.9	20.7	27.8	26.6	2987	14.4	15.5	44.5	25.6
Maintain records on learning targets	3326	1.5	12.7	40.5	45.2	2944	1.1	13.9	28.1	56.9
Match classwork to targets and activities	3315	33.3	23.4	15.8	27.5	2981	27.4	26.7	27.8	18.1
Provide extra 1:1 tuition in reading skills	3406	53.5	30.2	4.4	12.0	3032	22.0	37.2	17.2	23.6
Meet parents re. ways to address learning difficulty	3354	2.7	2.3	45.2	49.7	3036	0.0	1.2	23.8	75.0
Adjust homework assignments in line with learning targets	3406	50.3	17.0	8.0	24.8	3040	46.8	21.2	16.8	15.2
Provide extra support in reading/writing skills development in other subjects	3397	62.6	19.0	15.9	2.4	3046	34.6	39.2	12.4	13.8

The provision of one-to-one additional tuition in reading skills was quite common in First class, but less so in Fifth (54% of First class but only 22% of Fifth class pupils received such tuition on most days). Teachers of approximately half of pupils at each grade level indicated that on most days they adjusted homework assignments in line with learning targets, while teachers of almost two-thirds of First class pupils, but of only one-third of Fifth class pupils, provided regular extra support in reading or writing in subjects other than English on most days.

No more than a third of pupils in receipt of learning support at either grade level had their classwork matched on most days to agreed targets and activities. Teachers of large majorities of pupils at each grade level indicated that maintaining records on learning targets and meeting parents specifically to discuss ways to address their children's learning difficulty in English were activities that happened no more than once or twice a term, if at all.

School Climate

Teachers were asked the extent to which they agreed or disagreed with a number of statements about the 'climate' in their school, including teacher perceptions of management efficiency, clarity of school goals, collegiality, disciplinary environment, and attitudes towards professional development. The vast majority of responses indicated that teachers were satisfied with the 'climate' in their school (Table 7.30).

Almost all pupils were taught by teachers who agreed that there was a positive attitude in their school toward the ideas in the PSEC, and who disagreed that they would not feel able to ask other members of staff for advice if they had a problem with their work. Further, teachers of approximately 90% of First class pupils, and of at least 86% of Fifth class pupils, agreed that time at staff meetings in their school was used effectively, that there was a strong 'sense of community' among the staff, and that their school had a clear set of goals and priorities for teaching. Teachers of over 80% of pupils at each grade level agreed that their school had a clear set of goals and priorities for discipline, and disagreed that the school's disciplinary policy was not applied consistently, that teaching staff were insufficiently involved in decision-making, or that morale of teachers in their school was low. Staff development was the area that registered most dissatisfaction. Teachers of 30% of Fifth class pupils and of 26% of First class pupils agreed that their school did not have a clear set of goals and priorities for staff development.

Table 7.30: Percentages of pupils whose teachers agreed or disagreed with statements about the 'climate' in their school

	1st class			5th class		
	N	Agree	Disagree	N	Agree	Disagree
Positive attitude to ideas in the PSEC	3747	95.3	4.7	3962	97.1	2.9
School has clear set of goals & priorities for teaching reading	3755	90.9	9.1	3923	87.2	12.8
School resources are used effectively for English teaching	3777	90.0	10.0	3973	90.5	9.5
Time at staff meetings used effectively	3750	89.9	10.1	3999	85.5	14.5
There is a strong 'sense of community' among the staff	3765	89.9	10.1	3989	86.7	13.3
School has clear set of goals & priorities for discipline	3742	84.4	15.6	3961	89.5	10.5
School has clear set of goals & priorities for staff development	3689	74.2	25.8	3920	70.4	29.6
School's disciplinary policy is not applied consistently	3790	13.5	86.5	3972	17.3	82.7
Teaching staff insufficiently involved in decision-making	3762	11.6	88.4	3987	10.5	89.5
Morale of teachers in school is low	3759	6.0	94.0	3977	11.8	88.2
Feel unable to ask other members of staff for advice if a problem with work	3790	5.8	94.2	4008	2.0	98.0

Classroom Environment and Reading Achievement

In analyses of the variables presented in this chapter, few were significantly associated with pupil achievement. One possible reason is the cross-sectional nature of the study, which looked at pupil performance at a specific point in time. However, some significant relationships were found.

In First class, pupils taught by a temporary or substitute teacher obtained a significantly lower mean score than pupils taught by a teacher employed on a permanent basis (237.7 versus 251.9 [Table 7.A11]). In Fifth class, the difference is not significant. Overall, there are no significant differences at either grade, between pupils taught by a male or a female teacher (Table 7.A12). However, First class girls taught by a male teacher obtained significantly lower scores than girls taught by a female teacher (240.9 versus 257.4, respectively) (Table 7.A13).

Also in First class, pupils taught in a multigrade classroom setting obtained a significantly higher mean score than pupils taught in single grade classrooms (261.1 versus 245.1 [Table 7.A14]). In Fifth class, pupils in multigrade classrooms also obtained a higher mean score than those in single grade classrooms (255.1 versus 246.0), but the difference is not statistically significant. These findings may be partially explained by the fact that no multigrade classes were assessed in designated schools. If only non-designated schools are included in analyses, the mean scores of pupils in single grade and multigrade classes are almost identical at Fifth class, and, while there is a 9-point difference at First class, it is not statistically significant.

Table 7.31 shows the correlations between pupil achievement and a number of variables. There is a significant positive correlation between teaching experience and pupil achievement; pupils taught by more experienced teachers tended to obtain slightly higher achievement scores than pupils taught by less experienced teachers. The relationship is stronger in First class (r=.16) than in Fifth class (r=.08), but is weak-to-moderate at both grades. The number of ICD days related to the PSEC attended by pupils' teachers showed a weak-to-moderate correlation with achievement (r=.15) at First class. However, if designated disadvantaged status is considered, the correlation between First class pupil achievement and ICD days attended on the English curriculum is noticeably stronger in designated disadvantaged schools than in non-designated schools (r=.30 versus r=.08 [Table 7.A15]). Teacher attendance at ICD days related to the PSEC was not significantly related to achievement at Fifth class. The correlation between achievement and teaching experience is also stronger for First class pupils in designated than in non-designated schools (r=.19 and r=.08, respectively [Table 7.A15]), but just fails to reach significance in designated schools (possibly due to the relatively small numbers involved).

In Fifth, but not in First class, the proportion of English lesson time that was spent on instruction showed a weak but significant positive correlation (r=.09) with achievement. Class size (for single grade classes only) is unrelated to pupil achievement at either grade level in non-designated disadvantaged schools. Achievement is positively correlated with class size at both grade levels in designated disadvantaged schools (r=.17 and r=.31 in First and Fifth class respectively), meaning that pupils in larger classes tend to achieve higher scores than pupils in smaller classes. This may reflect positive discrimination in terms of teacher allocation to designated schools with the highest levels of disadvantage (as in Breaking the Cycle and Giving Children an Even Break).

There is a weak to moderate significant positive correlation between pupils' achievement and the ratio of pupils to class library books (r=.16) in Fifth class, but the relationship is not significant at First class. Finally, items relating to the frequency with which teachers assessed pupils (as shown in Tables 7.25 and 7.26) were combined to create an index of the frequency with which teachers performed a variety of assessments. At First class, there was a weak to moderate correlation (r=.15) between frequency of assessment and achievement (i.e., pupils who were frequently assessed tended to achieve slightly higher scores than those assessed less frequently).

Table 7.31: Correlations between achievement and various classroom and teacher characteristics

	1st class				5th class			
	N	r	t	p	N	r	t	p
Teaching experience	3779	**.155**	3.150	.003	3964	**.082**	2.001	.049
ICD on English curriculum	3287	**.147**	3.078	.003	3584	.010	0.223	NS
% lesson time = instruction	3662	.043	0.821	NS	3897	**.093**	2.256	.027
Class size (single grade in non-DD school)	2038	.007	-1.787	NS	1742	.051	1.359	NS
Class size (single grade in DD school)	599	**.174**	2.089	.041	576	**.311**	4.600	<.001
Pupil : book ratio in class library	3511	.060	1.371	NS	3760	**.155**	2.381	.020
Frequency of assessment	2698	**.145**	3.679	.001	3070	-.010	0.495	NS

Significant correlations in bold. For help in interpreting table see page 36.

Summary

Most pupils were taught by experienced, qualified teachers employed on a permanent basis. However, in First class, one in seven pupils was taught by a substitute or temporary teacher, one in eight by a just-qualified teacher, and almost one in ten by an unqualified teacher. Teachers averaged almost 3 days ICD in the last five years on implementing the 1999 English curriculum, but a significant minority had not attended any ICD related to English in that time. Identifying and dealing with reading difficulties were the two topics for which the curriculum documents were seen as least useful.

First class pupils spent approximately five hours a week in English lessons – 20 minutes more than pupils in Fifth class. However, average daily *instruction time* was approximately 50 minutes a day, with pupils in designated disadvantaged schools receiving less English instruction time than pupils in non-designated schools. Very frequent use of reading schemes, workbooks and worksheets was the norm, with use of other materials (such as documents and informational material) much less frequent. Whole-class activities characterised many English lessons, and teachers of up to one in five pupils did not group their class for English lessons.

The average number of class library books (mostly fiction) per pupil was 14 in First and 16 in Fifth class, with considerable variation between classrooms. Three in every 10 pupils were taught by teachers who did not use computers when teaching English lessons, and, among those that did, few did so on a regular basis. Teachers of up to 20% of pupils indicated they were not familiar with the DES's LSG, while more than two-fifths matched

classwork to agreed targets and activities for their pupils in receipt of learning support or resource teaching no more than once or twice a term.

Teacher-made tests and assessment of pupils' classwork were the methods most frequently used to assess pupils' English reading and writing. Teachers of approximately 5% of pupils indicated that they never used standardised tests, while over half never used curriculum profiles. Large majorities of teachers were happy with most aspects of their school's 'climate', including sense of community, the clarity of the school's goals for teaching reading, and the effectiveness with which resources were used for teaching reading. However, 30% of Fifth class pupils were taught by teachers who disagreed that their school had a clear set of goals and priorities for staff development.

Few aspects of the classroom environment were significantly related to achievement. However, higher scores were associated with having an experienced teacher with a permanent contract, a teacher who participated in ICD, or a teacher who frequently assessed his or her pupils.

8. School Environment

This chapter describes school-level characteristics, and explores associations between a variety of such characteristics and reading achievement. The chapter is divided into six sections. The first describes general school characteristics, including enrolment and attendance rates, socioeconomic composition, and the proportion of pupils in receipt of additional support. The second section describes home-school links; the third school policy, planning, and assessment in English. The fourth section describes schools' learning resources, including libraries, library books, and computing resources, as well as perceived obstacles to the teaching of reading. This is followed by a section detailing teaching staff and support personnel. The final section relates some selected characteristics of schools to pupil achievement, and describes the creation of a composite measure of socioeconomic deprivation at the school level. The chapter is mainly based on principals' responses to the School Questionnaire, but includes some pupil-level data (e.g. medical card possession) aggregated to the school level.

School Characteristics

This section describes some characteristics of schools (language of instruction, school location, enrolment, and attendance rates) and of the schools' enrolment (language spoken by pupils, their SES characteristics, and the proportion in receipt of additional support).

Approximately 95% of First and Fifth class pupils attended schools where the main language of instruction was English. Less than 2% attended schools in a Gaeltacht area (0.4% at First class and 1.6% at Fifth class) while 4.6% at First class and 3.0% at Fifth class attended Gaelscoileanna/Scoileanna lán-Ghaeilge (see Table 8.A1 on http://www.erc.ie/naer04/e-appendix). Approximately 40% at each grade level attended schools in the cities of Dublin, Cork, Galway, Limerick, or Waterford, while one-third attended schools in a rural area (Table 8.1). Almost three-quarters of pupils were enrolled in mixed-gender schools, which were more common in rural than in other locations.

Table 8.1: Percentages of pupils in single-gender and mixed-gender schools, by location

	1st class (N=3812)			5th class (N=4049)		
	Single-gender	Mixed-gender	Total	Single-gender	Mixed-gender	Total
Large City	12.7	27.5	40.2	12.3	24.6	36.9
City / large town: pop > 10,000	5.0	11.0	16.0	6.6	8.5	15.2
Small town: pop 1,500 - 10,000	8.0	3.9	11.9	7.9	3.7	11.7
Rural: pop < 1,500	0.6	31.3	31.9	2.5	33.7	36.2
Total	26.3	73.7	100.0	29.4	70.6	100.0

Over three-quarters of pupils at each grade attended schools where all or almost all pupils spoke English or Gaeilge as their first language (Table 8.2). However, close to 5% attended schools where more than one in five pupils had a first language other than English or Gaeilge (hereafter referred to as 'non-native speakers').

Table 8.2: Percentages of pupils who were enrolled in schools with varying proportions of pupils whose first language was English or Gaeilge

	N	>95%+	91-95%	81-90%	≤80%
1st class	3767	77.8	10.5	7.0	4.7
5th class	3938	82.4	8.8	5.2	3.5

Enrolment and Attendance Rates

Principals were asked to indicate the total number of pupils in ordinary classes in their school at the time of the study. Average enrolment was 263 pupils in the schools attended by First class pupils, ranging from 34 pupils in the smallest school to 848 in the largest (Table 8.3). Fifth class pupils attended schools with an average enrolment of 249 pupils, but enrolment ranged from 13 to 848 pupils.

Table 8.3: Schools' mean enrolment with SD and range

	N	Mean	Std Dev	Range
1st class	3735	262.9	169.95	34-848
5th class	3968	248.6	171.22	13-848

Average attendance for the school quarter of 1st January to 31st March 2004 was 93% (93.1% for First class and 93.2% for Fifth class), and ranged from 82% to 99% at both grade levels (Table 8.A2).

Additional Support in English

Both First and Fifth class pupils attended schools where an average of 10% of pupils in ordinary classes were in receipt of learning support for English from a sanctioned learning-support teacher at the time of the study (9.7% at First class and 10.0% at Fifth) (Table 8.A3). However, there was considerable variation in the percentage of pupils in receipt of such support, ranging from zero to 50.9% of total enrolment in schools attended by First class pupils and zero to 41.5% of total enrolment in schools attended by Fifth class pupils. In schools attended by First class pupils, 15.5% of pupils receiving learning support had been formally diagnosed with a specific learning disability (SLD); the equivalent percentage in schools attended by Fifth class pupils was 16.5%. However, due to the phrasing of the item in the questionnaire, some teachers may have responded in relation to all SLDs, while others may have responded in relation only to dyslexia. In addition, 10.2% of pupils receiving support in schools attended by First class pupils and 9.6% of pupils in schools attended by Fifth class pupils had been diagnosed with a mild or moderate general learning disability.

In schools attended by First class pupils, an average of 4.7% (ranging from zero to 37.7%) of total enrolment were in receipt of resource teaching, a figure that increased to 5.1% (ranging from zero to 62.3%) when schools attended by Fifth class pupils were considered (Table 8.A3). Of those who were in receipt of resource teaching for English, 38.6% of pupils in schools attended by First class pupils and 46.0% of pupils in schools attended by Fifth class pupils were formally diagnosed with a SLD. Again, due to item phrasing, these percentages are more likely to represent pupils with dyslexia than with the range of SLDs.

At both grade levels, half of pupils were in schools that provided extra tuition in the language of instruction to pupils who were non-native (English or Gaeilge) speakers. In such schools, support was typically provided by a language support teacher, although a significant minority of First and Fifth class pupils received support from a class teacher or learning-support teacher with some schools indicating that their support was provided by more than one category of teachers (Table 8.4). Twelve percent (at both grade levels) were in schools where non-native speakers received support from other sources including adult volunteers, special needs assistants, and resource teachers.

Table 8.4: Percentages of pupils who attended schools that provided extra language tuition to pupils who were non-native speakers, and sources of tuition

	1st class (N=1883)		5th class (N=1980)	
	Yes	No	Yes	No
Extra tuition provided	50.4	49.6	50.1	49.9
Class teacher	11.6	88.4	13.2	86.8
Learning-support teacher	10.9	89.1	14.1	85.9
Language-support teacher	32.5	67.5	29.1	70.9
Other	12.4	87.6	11.6	88.4

Socioeconomic Composition

This section describes aspects of the socioeconomic composition of schools, including disadvantaged status and variation between schools in the proportions of pupils in receipt of a grant under the School Books for Needy Pupils scheme ('books grant'), covered by the medical card, with employed or early school leaver parents, and in a higher socioeconomic category on the ISEI[1] scale. With the exception of disadvantaged status and books grant, data are based on Parent Questionnaire responses.

At First class level, 15.6% of pupils attended schools that were designated as disadvantaged, while 14.7% of Fifth class pupils attended such schools (Table 8.A4). In the schools attended by First and Fifth class pupils, 30% of pupils were covered by the books grant, just under a quarter were covered by the medical card, and over 90% had at least one employed parent (Table 8.5). ISEI scores were used to classify each pupil's family socioeconomic status. The mean school-level ISEI score was 48.0 in schools attended by First class pupils and 47.5 in schools attended by Fifth class pupils, both of which are very similar to the mean ISEI score of 48.3 found in the Irish element of PISA 2003[2]. ISEI scores were further divided into low, average, and high scores and the proportion of pupils within each school with a high score was computed. By definition, an average of approximately one-third of pupils in the schools attended by First and Fifth class pupils had a high ISEI score (the mean value for the high ISEI score was 64.8 at First class and 65.6 at Fifth class). Associations between the socioeconomic variables considered here and reading achievement are presented in a later section in this chapter.

[1] See 'Socioeconomic Status' in Chapter 6 for an explanation of ISEI scores.
[2] Source: PISA 2003 database, available at http://www.pisa.oecd.org

Table 8.5: Mean percentages of pupils with various SES attributes

	1st class			5th class		
	N	Mean	Range %	N	Mean	Range %
Book grant (class level)	3568	29.6	0-100	3733	29.8	0-100
Medical card holders	3842	22.0	0-94	4090	23.8	0-80
One parent employed	3842	92.8	46-100	4090	92.4	53-100
Highest third of ISEI scores	3842	34.2	0-89	4090	32.3	0-81

Home-School Links

This section explores communication between schools and pupils' homes, including attendance at parent-teacher meetings, Parents' Associations and their activities, HSCL and programmes supporting parents in helping their children with English reading.

All First class pupils attended schools that held parent-teacher meetings in the 2003/04 school year, as did 99.7% of Fifth class pupils (Table 8.A5). The average attendance at these meetings was 83.6% at First class and 84.2% at Fifth class. Over 80% of pupils at First and Fifth class attended schools that had a Parents' Association (Table 8.6). Of these pupils, 36.3% at First class and 35.2% at Fifth class were enrolled in schools where teachers attended meetings of the Parents' Association in their capacity as teachers.

Table 8.6: Percentages of pupils who attended schools that had a Parents' Association

	N	Yes	No
1st class	3811	87.4	12.6
5th class	4047	82.4	17.6

As shown in Table 8.7, most pupils attended schools where the Parents' Association organised fundraising for literacy material for the school, while over one-third attended schools where it organised book fairs to promote pupils' learning. In contrast, only a minority of pupils attended schools where the Parents' Association was involved in organising either visits to schools by authors or other literacy activities. Other literacy activities organised by staff and Associations included paired reading activities, Forward Together programmes, poetry and literacy competitions, drama classes, reading week, book days, library visits, readathons, and 'write-a-book' projects.

Table 8.7: Percentages of pupils who attended schools where the Parents' Association or staff organised various activities to promote pupils' learning

	1st class				5th class			
	PA		Staff		PA		Staff	
	N	%Yes	N	%Yes	N	%Yes	N	%Yes
Book fairs	3293	37.0	3773	64.5	3296	33.7	4008	63.1
Fundraising for literacy material for the school	3293	71.6	3773	32.0	3296	70.2	4008	34.4
Visits to schools by authors	3268	11.2	3748	64.2	3272	8.0	3984	65.7
Other activities related to literacy	3268	13.0	3773	51.5	3272	9.3	4008	53.0

The services of a HSCL coordinator were available – in designated disadvantaged schools – to 15.7% of First class and 14.9% of Fifth class pupils (Table 8.A6). In the schools where a HSCL coordinator was available, principals were asked, through an open-ended question, the ways in which the coordinator was involved in promoting reading and writing in English. Of the subgroup whose principals responded to the question, almost half of pupils attended designated schools where the HSCL coordinator organised literacy classes for parents. Up to one in five (19.5% and 15.3% for First and Fifth class, respectively) attended schools where the coordinator organised paired/shared reading events, while 26.5% of First class and 31.6% of Fifth class pupils attended schools where the HSCL coordinators promoted reading and writing in English using both parental courses and paired/shared reading events. Further, a minority indicated that the HSCL coordinator used information packs in the promotion of English reading and writing (in schools attended by 4.7% of First class and 5.8% of Fifth class pupils).

Approximately three-quarters of First and Fifth class pupils attended schools that had implemented a programme to support parents in helping their children with English reading at home (Table 8.8). The type of programme most commonly offered was the promotion of *informal* paired/shared reading activities. Less than one-third of schools attended by First or Fifth class pupils had implemented *formal* paired/shared reading schemes. Further, only 13% to 16% of pupils (Fifth and First class, respectively) attended schools that provided literacy classes for parents. Other programmes offered included literacy activities (writing competitions, book week, talks on the importance of shared reading with parents and homework clubs) as well as phonological awareness programmes, and support for family literacy and Reading Recovery.

Table 8.8: Percentages of pupils who attended schools that implemented various programmes to support parents in helping their children with English reading

	1st class (N=3755)		5th class (N=3979)	
	Yes	No	Yes	No
Any programme implemented	78.2	21.8	70.1	29.9
Promotion of informal paired/shared reading activities	68.2	31.8	61.1	38.9
Implementation of formal paired/shared reading schemes	31.6	68.4	26.8	73.2
Literacy classes for parents	15.9	84.1	12.5	87.5
Other	8.8	91.2	6.6	93.4

School Policy and Planning

Approximately one-third of pupils attended a school that had an active policy for the inclusion of pupils who were non-native speakers (Table 8.9). Generally, schools that had a higher proportion of non-native speakers were more likely to have such a policy. The most typical policy reported (in response to an open-ended question) was the provision of additional instructional support, both inside and outside the classroom. Other, less typical policies were 'culture sharing', a combination of additional support and culture sharing, and 'general integration'.

Table 8.9: Percentages of pupils who attended schools with various policies regarding the inclusion of non-native speakers

	1st class		5th class	
	N	%	N	%
Have policy	1270	34.8	1233	32.1
Provide additional instructional support	685	19.1	581	15.2
Culture sharing	213	5.9	263	6.9
Combination of additional support and culture sharing	241	6.7	287	7.5
General integration	38	1.1	64	1.7
Other	35	1.0	23	0.6
N/A no policy	2381	66.2	2612	68.2

All pupils in First class and 99.8% in Fifth class (excluding pupils from Senior Schools) attended schools that had a policy on when formal instruction in English reading should begin (Table 8.A7). Just over half of First and Fifth class pupils were in schools where all pupils began formal instruction in English reading around the same time, in Junior Infants, while 26% of Fifth class pupils and 30% of First class pupils attended schools where all pupils began in Senior Infants (Table 8.10). Less than 20% in First and Fifth class were in schools where class teachers decided when it was appropriate to begin formal instruction in English reading on an individual pupil basis. Almost all pupils (97.2% at First and 96.1% at Fifth) attended schools where formal instruction in English reading began before formal instruction in reading in Irish (Table 8.A7).

Table 8.10: Percentages of pupils who attended schools with various formal policies on when formal instruction in English reading should begin

	1st class (N=3481)	5th class (N=3092)
All begin formal instruction at the same time, in Junior Infants	53.8	52.7
All begin formal instruction at the same time, in Senior Infants	30.2	25.8
Class teachers decide when to begin formal instruction on an individual pupil basis	14.7	19.7
Other	1.3	1.8

School Planning

Principals were asked if they found the strands and strand units of the Primary School English Curriculum (PSEC) useful as a framework for the planning, teaching, and assessment of English in their school. Almost all pupils' principals (95.9% at First and 95.2% at Fifth) found the strand units useful, while 87.9% and 89.0% (at First and Fifth, respectively) found the strands useful (Table 8.A8).

Principals were presented with a list of 15 topics that might be included in a school development plan and asked to indicate which were included as written statements in their school plan. Written statements on the teaching of English, the assessment of English, the assessment of pupils' reading skills, the identification of pupils' reading difficulties, and the provision of learning support in English were almost universal (Table 8.11). Further, 91%

of Fifth class pupils attended schools with development plans that included statements on the selection of English textbooks, while 89% of First class pupils attended schools with such statements. However, approximately one-quarter of First and Fifth class pupils attended schools where there was no written statement in the plan on the following: assessment of pupils' oral language skills, parental involvement in pupils' reading or writing development, use of information and communications technologies in the teaching of English, and library development.

Table 8.11: Percentages of pupils who attended schools with various written statements included in the School Development Plan

	1st class			5th class		
	N	Yes	No	N	Yes	No
Teaching of English	3779	97.7	2.3	4008	97.1	2.9
Identification of pupils' reading difficulties	3811	97.1	2.9	4047	97.7	2.3
Assessment of pupils' reading skills	3811	96.7	3.3	4047	97.3	2.7
Provision of learning support in English	3719	96.4	3.6	3945	96.0	4.0
Assessment of English	3704	94.3	5.7	3961	96.0	4.0
Selection of English textbooks	3599	88.6	11.4	3810	90.9	9.1
Communicating pupils' progress in English reading to parents	3811	88.4	11.6	4047	88.3	11.7
English homework practices	3811	86.1	13.9	4047	81.9	18.1
Library usage	3690	82.1	17.9	3989	85.2	14.8
Assessment of pupils' oral language skills	3735	76.3	23.7	3941	76.3	23.7
Parental involvement in pupils' reading/writing development	3643	75.1	24.9	3898	70.7	29.3
Library development	3550	75.1	24.9	3805	74.0	26.0
Identification of pupils' writing difficulties	3760	75.0	25.0	3980	80.5	19.5
Assessment of pupils' writing skills	3760	74.7	25.3	3980	79.8	20.2
Use of information and communications technologies in the teaching of English	3589	74.2	25.8	3830	75.3	24.7

The average time spent at formal staff meetings in the 2003/04 school year was 8.9 hours (in schools attended by pupils in First class) and 8.6 hours (in schools attended by pupils in Fifth class) (Table 8.A9). On average, between 12.9% (70.8 minutes, Fifth class) and 14.0% (62.5 minutes, First class) of time at staff meetings was spent discussing the teaching of English, while between 7.6% (40.7 minutes, Fifth class) and 8.4% (46.7 minutes, First class) was spent discussing the assessment of English. However, there was considerable variation between schools in both the amount of time spent in meetings, and in the proportion of such time allocated to the teaching and assessment of English. For example, 9.4% of First class pupils attended schools where no time was spent discussing the teaching of English, while 14.5% of pupils attended schools where over two hours had been spent discussing the teaching of English.

Assessment of English

Most First class pupils (84.6%) attended schools where there was a policy of administering early-screening tests or standardised checklists in the Infants classes (Table 8.A10). Excluding schools without Infants classes, 79.9% of Fifth class pupils attended schools who administered such assessments. In addition, curriculum profiles (to assess pupils' reading

and writing development as well as oral language) were used by at least one teacher in schools attended by 39.8% of First class and 31.7% of Fifth class pupils (Table 8.A10).

Most pupils (87.2% at First and 89.2% at Fifth) attended schools where standardised tests of English were administered to at least some classes once a year, while 8.8% at First class and 7.1% at Fifth class were in schools where such tests were administered twice a year. Four percent of First class pupils and 3.7% of Fifth class pupils were in schools where standardised tests were administered every second year. No pupils attended schools where such tests were never administered (although all grades in these schools may not have been tested; Table 8.A11).

Principals were asked to indicate the class levels (of those available in their schools) at which standardised tests of English were administered at least once per year. Over 90% of pupils at both grade levels were enrolled in schools where First through to Fifth class were administered such tests at least once a year (Table 8.12). Administration was slightly less widespread at Sixth class, and much less widespread at Senior Infants (although still carried out in a majority of schools).

Table 8.12: Percentages of pupils who attended schools that administered standardised tests of English at various class levels

	1st class			5th class		
	N	Yes	No	N	Yes	No
Senior Infants	3694	60.7	39.3	3308	58.2	41.8
First class	3737	93.0	7.0	3363	92.4	7.6
Second class	3737	90.7	9.3	3722	96.9	3.1
Third class	3177	96.7	3.3	3983	97.7	2.3
Fourth class	3177	96.0	4.0	3983	96.2	3.8
Fifth class	3177	97.4	2.6	3983	98.3	1.7
Sixth class	3177	85.5	14.5	3983	86.1	13.9

In almost all instances where standardised tests were administered, they were used to help identify pupils with learning difficulties (Table 8.13). Other common purposes were to inform parents about their child's progress, to monitor the school's progress from year to year, and to identify aspects of instruction of the curriculum that could be improved.

Table 8.13: Percentages of pupils who attended schools that used standardised assessments for various purposes

	1st class (N=3474)		5th class (N=3914)	
	Yes	No	Yes	No
To identify pupils who have learning difficulties	98.1	1.9	98.9	1.1
To inform parents about their child's progress	89.6	10.4	90.1	9.9
To monitor the school's progress from year to year	86.1	13.9	85.2	14.8
To identify aspects of instruction or the curriculum that could be improved	79.9	20.1	83.1	16.9
To group students for instructional purposes	68.0	32.0	63.5	36.5
To compare the school to national performance	66.0	34.0	63.9	36.1
To compare the school with other schools	13.2	86.8	12.3	87.7

School Policy on Reading Texts

Most pupils were enrolled in schools where the school policy regarding reading texts was that reading was taught using a combination of reading schemes and children's literature (90.8% at First class and 91.7% at Fifth class) (Table 8.A12). A further 8.6% of First class and 7.9% of Fifth class pupils attended schools in which the policy was that reading was taught using only published reading schemes, while only 0.5% at both grade levels were in schools where reading was taught using children's literature but not a reading scheme. Selection of the main texts for teaching reading was at the discretion of the class teacher in schools attended by 23.5% of First class pupils and 27.8% of Fifth class pupils (Table 8.A13).

Schools' Learning Resources

In this section, school resources are described, including the availability of library books and computers, and factors perceived by principals to impede the teaching of reading.

Libraries and Library Books

Schools attended by over 90% of pupils (at each grade) had a classroom library in every classroom, while schools attended by 5% to 6% of pupils had a classroom library in most classrooms (Table 8.14). Approximately 40% of pupils at each grade had access to a central school library.

Table 8.14: Percentages of pupils who attended schools that had varying types of libraries

	1st class (N=3811)		5th class (N=4047	
	Yes	No	Yes	No
A room used exclusively as a central school library	22.2	77.8	25.7	74.3
A room used as a school library which is also used for other purposes	16.3	83.7	14.5	85.5
A classroom library in some classrooms	5.0	95.0	6.3	93.7
A classroom library in every classroom	93.7	6.3	91.6	8.4

Based on principals' estimates, there was an average of 2747 books (in school and class libraries) in schools attended by First class pupils; the equivalent for Fifth class pupils was 2502 books (Table 8.15). On average, there were 12 books to each pupil, with just over one book per pupil purchased in the 2003/04 school year at both grade levels. Most First and Fifth class pupils (70.8% and 66.8%, respectively) were enrolled in schools with a teacher whose post of responsibility included library duties (Table 8.A14).

Table 8.15: Characteristics of school libraries

	1st class			5th class		
	N	Mean	Range	N	Mean	Range
Total library books	3482	2746.8	140-20000	3726	2501.8	200-14000
New books since September	3588	274.8	12-1500	3840	254.4	0-2000
Ratio of total books to pupil	3069	11.6	0.2-91.7	3647	11.7	1.3-52.6
Ratio of new books to pupil	3175	1.2	0.03-18.9	3761	1.3	0.0-7.27

Computing Resources

First class pupils' schools had an average of 18 computers available for use in learning English reading and writing. This rose to 19 in schools attended by Fifth class pupils (Table 8.16). About one-third of computers were located in a central room rather than in a classroom. Only 1% at First and Fifth class did not have any computers in classrooms, while 53% did not have any in a central room. On average, there was a computer for every 15 pupils in schools attended by First class pupils and one computer for every 14 pupils in schools attended by Fifth class pupils, but the ratio ranged from 3 to 111 pupils per computer at First class and from 2 to 111 at Fifth class.

Table 8.16: Availability of computers for use in learning English reading and writing

	1st class				5th class			
	N	Mean	%None	Range	N	Mean	%None	Range
Central room	3671	6.7	52.9	0-38	3968	7.1	52.7	0-38
Classroom	3772	11.6	1.0	0-40	3971	12.1	1.4	0-45
Total	3694	18.4	0.0	2-112	3906	19.3	0.0	2-71
Ratio of pupils to computer	3617	15.6	–	2.9-111	3827	14.1	–	2.2-111

Principals were asked how frequently computers were used for instruction in English reading or writing at First and Second class and at Fifth and Sixth class. Only 13% of First class pupils were in schools where their teachers used computers for teaching English reading or writing on a daily or almost daily basis, while 16% were in schools where their teachers hardly ever or never did so (Table 8.17). A slightly larger proportion of Fifth class pupils were in schools where their class teachers used computers very regularly, but again, a significant minority (12%) were in schools where computers were hardly ever or never used for instruction in English reading or writing.

Table 8.17: Frequency with which percentages of pupils use computers for instruction in English reading/writing

	N	Every day/almost every day	Once/twice a week	Once/twice a month	Never/ hardly ever
1st and 2nd class	3524	13.0	48.3	22.8	15.9
5th and 6th class	3999	18.6	43.6	26.0	11.8

Obstacles to Teaching Reading

Principals were presented with a list of 23 potential problem factors, and asked to indicate how much, if at all, each hampered the teaching or learning of reading in their school. Full details of principals' ratings, summarised here, are available in Tables 8.A15 and 8.A16. At least half of First and Fifth class pupils attended schools where principals found the following to be a problem or a serious problem: shortage of learning-support teaching time for English, inadequate psychological services, large classes, shortage of substitute teachers, lack of trained library support staff, and low parental literacy levels. Factors such as a shortage of library books, a shortage of workbooks or worksheets, and a high teacher turnover were less frequently perceived as obstacles to teaching and learning of English, with less than 20% of pupils at either grade level attending schools where these factors were viewed as a problem or a serious problem.

Principals were asked to indicate which of the 23 factors listed they perceived to be the three most serious obstacles to the teaching and learning of English. Three items were selected far more frequently than others: large classes, shortage of learning-support time, and lack of psychological services (Table 8.18 and 8.19). One quarter of Fifth class pupils and 30% of First class pupils attended schools where the principal cited large classes as the most serious obstacle. If the second and third most serious problems are also considered, about 50% of pupils at First and Fifth class were in schools where large classes were cited, and almost as many were in schools where shortage of learning-support time and lack of psychological services were cited.

Table 8.18: Percentages of First class pupils whose principals rated various factors as one of the three most serious obstacles to the teaching of reading in their school

	Most serious (N=3767)	Second most (N=3745)	Third most (N=3513)	Total (N=3767)
	%	%	%	%
Large classes	30.2	18.2	7.1	54.9
Shortage of learning-support time	26.5	17.4	8.8	52.1
Inadequate psychological services	10.7	20.5	20.0	50.0

Table 8.19: Percentages of Fifth class pupils whose principals rated various factors as one of the three most serious obstacles to the teaching of reading in their school

	Most serious (N=4047)	Second most (N=4009)	Third most (N=3787)	Total (N=4047)
	%	%	%	%
Large classes	24.4	18.2	7.0	49.0
Shortage of learning-support time	27.2	13.4	8.7	48.7
Inadequate psychological services	11.5	18.0	17.8	45.2

Teaching Staff and Support Personnel

The average number of full-time teaching staff was 14 in schools attended by First class pupils and 13 in schools attended by Fifth class pupils. The average school-level[3] pupil-teacher ratio was 19:1 at each grade level (Table 8.20), but this fell to just under 14:1 in designated disadvantaged schools. Less than 3% of total teaching staff were unqualified (lower than the percentage of unqualified class teachers reported in Chapter 7). However, in designated disadvantaged schools an average of 5.6% of staff at First class and 3.4% of staff at Fifth class were unqualified. This fell to 2.4% at First class and 1.9% at Fifth class in non-designated schools. Sixty-six percent of First class and 75% of Fifth class pupils attended schools that had no unqualified teachers, but 27% of First class pupils and 19% of Fifth class pupils attended schools where at least 10% of teaching staff were unqualified. The ratio of pupils to learning-support teachers was 350:1 in schools attended by First class pupils, and 333:1 in schools attended by pupils in Fifth class. The ratio of pupils to

[3] The school-level ratio, which is distinct from the ratio of pupils to teachers in a classroom, refers to all full-time teachers in a school (including learning-support teachers, resource teachers and administrative principals).

resource teachers was 259:1 in schools attended by First class pupils and 214:1 in schools attended by Fifth class pupils. Approximately one-third of First and Fifth class pupils attended schools where the principal had full-time teaching duties.

Table 8.20: Details of schools' staff

	1st class			5th class		
	N	Mean	Range	N	Mean	Range
No. of FT teaching staff	3811	13.9	2-38	4047	13.2	2-38
% unqualified teachers	3791	2.9	0-20	4018	2.1	0-20
School level pupil-teacher ratio	3735	19.4	3.8-28.5	3968	19.1	6.5-28.5
School level pupil-LS teacher ratio	3561	349.9	35.5-863.6	3816	332.7	39.4-863.6
School level pupil-Resource teacher ratio	3434	258.5	13.3-3130.0	3682	213.6	24.4-3130.0
% principals with FT teaching duties	3811	32.5	-	4047	35.0	-

School Characteristics and Pupil Achievement

In this section, relationships between achievement and various school factors (including gender composition, school size, school location, attendance rates, and learning support) are examined. A school-level composite of socioeconomic deprivation is then described, along with its relationship to achievement. Finally, correlations between some school characteristics and achievement are presented.

Almost three-quarters of First class pupils (73.9%) attended mixed-gender schools, 16.2% attended all-girls schools, and 9.9% all-boys schools. At Fifth class, 70.3% of pupils attended mixed-gender schools, 13.3% all-girls schools, and 16.4% all-boys schools. There are no significant differences in reading achievement related to school gender composition (Table 8.A17).

Schools were divided into small, medium, and large, based on their total enrolment. At both grade levels, pupils who attended small schools obtained mean scores that are significantly higher than those of pupils who attended medium sized schools, but do not differ significantly from the scores of pupils who attended large schools (Table 8.21).

Table 8.21: School size and pupil achievement

	1st class (N=3735)				5th class (N=3968)			
	Mean % enrol	%	Mean ach	SE	Mean % enrol	%	Mean ach	SE
Small (RefGroup)	96.7	33.1	258.6	4.39	82.3	33.4	258.9	3.44
Medium	234.5	33.6	**241.3**	4.51	223.9	33.2	**241.1**	5.42
Large	457.2	33.3	250.4	3.62	438.8	33.5	251.9	3.33

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Schools' annual average attendance rates were categorised into low, medium, and high. First class pupils enrolled in schools with low attendance rates obtained significantly lower achievement scores than pupils enrolled in schools with average and high attendance rates (Table 8.22). Though a similar pattern of mean scores was observed at Fifth class, differences are not statistically significant.

Table 8.22: School-level attendance rates and pupil achievement

	1st class (N=3222)				5th class (N=3373)			
	Mean % attend	%*	Mean ach	SE	Mean % attend	%*	Mean ach	SE
Low (RefGroup)	90.5	32.7	235.6	4.31	90.2	35.1	239.6	6.92
Medium	93.6	30.6	**249.9**	3.57	93.6	22.5	247.9	3.36
High	95.4	36.7	**263.0**	3.43	95.5	42.4	257.0	2.03

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.
* Percent of pupils in category

Schools were divided into low, medium, and high categories based on the percentage of pupils in receipt of learning support (Table 8.23). At Fifth class, pupils in schools in the high category obtained significantly lower achievement scores than pupils who attended schools in the low category. There are no significant differences in mean pupil achievement based on this categorisation at First class. Schools were also categorised into low, medium and high according to the percentage of pupils in receipt of resource teaching. Mean pupil achievement was not found to vary significantly with the percentage of pupils in receipt of resource teaching in either First or Fifth class (Table 8.A18).

Table 8.23: Proportion of pupils in receipt of learning support and pupil achievement

	1st class (N=3561)				5th class (N=3683)			
	Mean % LS	%*	Mean ach	SE	Mean % LS	%*	Mean ach	SE
Low (RefGroup)	4.6	29.3	256.3	5.30	5.3	33.1	260.3	2.45
Medium	8.1	32.1	253.9	3.02	8.5	32.9	252.1	3.58
High	15.0	38.6	242.6	4.72	15.9	34.0	**241.0**	6.76

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.
* Percent of pupils in category

Approximately one-fifth of pupils in First and Fifth class attended schools where literacy classes were offered to parents. Pupils who attended these schools achieved significantly lower mean scores than pupils who attended schools without such programmes (Table 8.24). However, due to exceptionally large 'missingness' on this item (up to 32%), results must be interpreted with caution. Further, if only designated disadvantaged schools are examined, reading achievement is not related to the availability of parental literacy classes (Table 8.25). However, in non-designated schools, First class pupils in schools that offered literacy classes for parents obtained significantly lower achievement scores than pupils in schools that did not offer these classes (a difference of almost 37 points[4]).

Table 8.24: Availability of parental literacy classes in schools and pupil achievement

	1st class (N=2936)			5th class (N=2790)		
	%	Mean	SE	%	Mean	SE
Yes (RefGroup)	20.3	221.0	4.73	17.8	215.3	8.56
No	79.7	**256.5**	2.74	82.2	**254.4**	2.19

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

[4] Some readers may wish to express point differences in terms of a standard deviation. The standard deviation for TARA is 50 at both grade levels. Thus, 37 points is almost three-quarters of a standard deviation.

Table 8.25: Availability of parental literacy classes in schools and pupil achievement, by disadvantaged status

		1st class (N=3755)			5th class (N=3979)		
		%	Mean	SE	%	Mean	SE
Disadvantaged	Yes (RefGroup)	83.4	221.0	5.45	79.4	212.1	9.07
	No	16.6	229.3	7.43	20.6	233.8	2.78
Non-disadvantaged	Yes (RefGroup)	4.6	221.2	11.81	3.3	234.1	16.7
	No	95.4	**257.7**	2.79	96.7	255.5	2.31

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

In approximately two-thirds of schools, the results of standardised tests were used to group pupils for instructional purposes. Pupils in First, but not in Fifth class, who attended such schools obtained a higher mean achievement score than pupils who attended schools that did not use standardised assessments for this purpose (Table 8.26).

Table 8.26: Use of standardised tests to group students for instructional purposes and pupil achievement

	1st class (N=3791)			5th class (N=4024)		
	%	Mean	SE	%	Mean	SE
Yes (RefGroup)	68.3	258.5	2.74	63.5	255.7	3.74
No	31.7	**246.1**	4.73	36.5	247.0	3.60

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Over 80% of pupils in First and Fifth class attended schools where the results of standardised tests were used to monitor the school's progress from year to year (Table 8.27). Fifth class pupils who attended such schools achieved a significantly lower mean score than pupils who did not attend these schools. However, no significant difference was found for First class pupils.

Table 8.27: Use of standardised tests to monitor school-level progress from year to year and pupil achievement

	1st class (N=3791)			5th class (N=4024)		
	%	Mean	SE	%	Mean	SE
Yes (RefGroup)	83.7	249.2	3.00	85.0	247.9	2.70
No	16.3	254.4	3.62	15.0	**261.9**	4.44

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Twelve percent of pupils at each grade level attended schools that used standardised tests of reading to compare their school with other schools (Table 8.28). Pupils in First class who attended such schools obtained a significantly higher mean score than pupils who attended schools that did not use standardised tests for this purpose.

Table 8.28: Use of standardised tests to compare the school with other schools and pupil achievement

	1st class (N=3791)			5th class (N=4024)		
	%	Mean	SE	%	Mean	SE
Yes (RefGroup)	12.1	274.0	6.02	12.0	254.2	6.21
No	87.9	**246.7**	2.36	88.0	249.6	2.66

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

A School-Level Composite of Socioeconomic Deprivation

In this section, five school-level socioeconomic factors are related to pupil achievement. These are:

- a school's designated disadvantaged status
- the proportion of pupils covered by the medical card
- the proportion of pupils in receipt of the books grant
- the proportion of pupils in the highest ISEI category
- the proportion of pupils with parents whose highest level of educational attainment does not exceed Junior Certificate (or equivalent).

Then, the development of a school-level measure of socioeconomic deprivation is described. The measure of socioeconomic deprivation is based on four of the five variables listed above (designated disadvantaged status is not a continuous measure and was not included in the composite measure of socioeconomic deprivation).

Approximately 15% of pupils attended designated disadvantaged schools and these obtained significantly lower mean scores at both grade levels than pupils who attended non-designated schools (a difference of 33 points in First class and 42 points in Fifth) (Table 8.29).

Table 8.29: Schools' disadvantaged status and pupil achievement

	1st class (N=3842)			5th class (N=4090)		
	%	Mean	SE	%	Mean	SE
No (RefGroup)	84.4	255.2	2.28	85.3	256.4	1.85
Yes	15.6	**222.1**	4.66	14.7	**214.6**	7.01

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Tables 8.30 and 8.31 show the correlations for First and Fifth class between the four continuous SES variables and achievement at the school level. All variables are significantly inter-correlated. The medical card and books grant variables are most strongly correlated at First class (r=.71), while the medical card and parental education variables have the strongest correlation at Fifth class (r=.71). The weakest correlation at both grade levels is between the achievement and the ISEI variable (r=.17 at First class and .19 at Fifth class).

Table 8.30: Correlations between school-level socio-economic variables (First class)

	Achievement	% Books Grant	% Medical Cards	% Highest ISEI	% Parental Education
Achievement	1	**-.301**	**-.241**	**.165**	**-.243**
% Books Grant		1	**.714**	**-.475**	**-.641**
% Medical Card			1	**-.614**	**-.685**
% Highest ISEI				1	**.600**
% Parental Education					1

Significant correlations in bold. For help in interpreting table see page 36.

Table 8.31 Correlations between school-level socio-economic variables (Fifth class)

	Achievement	% Books Grant	% Medical Cards	% Highest ISEI	% Parental Education
Achievement	1	**-.255**	**-.300**	**.192**	**-.374**
% Books Grant		1	**.601**	**-.365**	**-.575**
% Medical Card			1	**-.484**	**-.708**
% Highest ISEI				1	**.531**
% Parental Education					1

Significant correlations in bold. For help in interpreting table see page 36.

Exploratory factor analysis was carried out on the four school-level socioeconomic variables to produce a summary measure of SES. Using principal components analysis, one factor was extracted at both First and Fifth class. The factor accounted for 71.8% of the variance at First class and 66.2% at Fifth class. A single composite score of SES deprivation was calculated for each school, with a mean of 0 and a standard deviation of 1. This measure was moderately and negatively correlated with pupil achievement at both First class (r=-.29) and Fifth class (r=-.35) (Table 8.32).

Table 8.32: Correlations between school-level SES deprivation composite score and pupil-level achievement

	N	r	t	p
1st class	3568	**-.293**	-8.209	<.001
5th class	3733	**-.352**	-6.362	<.001

Significant correlations in bold. For help in interpreting table see page 36.

Correlations between School-Level Variables and Pupil Achievement

In this section, the intercorrelations between some school-level variables and pupil-level achievement are presented. With the exception of the socioeconomic deprivation composite score, all data are based on responses to items on the School Questionnaire. As can be seen from Tables 8.33 and 8.34, the school-level deprivation composite shows the strongest correlation with pupil achievement at both First (r=-.29) and Fifth class (r=-.35). School-level attendance rates had a weak to moderate correlation with achievement at First and Fifth class (r=.14 and .13, respectively), as did the school-level pupil-teacher ratio (r=.26 and r=.19, respectively). At First class, there was a weak to moderate negative

correlation between achievement and the proportion of parents who attended parent-teacher meetings (r=-.11).

Most of the school-level variables were significantly correlated with each other. The school SES deprivation score had a moderate to strong negative correlation with attendance (r=-.35 at First class and -.36 at Fifth class) and pupil-teacher ratio (r=-.62 at First class and -.48 at Fifth class). This means that socioeconomically deprived schools were likely to have poor attendance rates and a lower pupil-teacher ratio. There was a moderate correlation between attendance and pupil-teacher ratio (r=.34 at First class and .27 at Fifth class). There also was a weak to moderate negative correlation between school-level attendance and percentage attendance at parent-teacher meetings (r=-.20 at First class and -.09 at Fifth class). Thus, schools that had high attendance rates typically had low attendance at parent-teacher meetings. There was a moderate negative correlation between pupil-teacher ratio and the proportion of parents who attended parent-teacher meetings (r=-.25 at First class and -.27 at Fifth class).

Table 8.33: Correlations between pupil-level achievement and various school-level characteristics (First class)

		Pupil Achievement	SES Dep score	School-level attendance	Sch-level PTR	% attendance at P-T meetings
Pupil Achievement	r	1	**-.293**	**.138**	**.263**	**-.105**
	t	-	-8.209	1.352	5.724	-1.894
SES Deprivation score	r		1	**-.345**	**-.621**	-.022
	t		-	-1.745	-5.643	-0.214
School-level attendance	r			1	**.341**	**-.195**
	t			-	3.223	-2.362
School-level pupil-teacher ratio	r				1	**-.247**
	t				-	-2.899
% attendance at P-T meetings	r					1
	t					-

Significant correlations in bold. For help in interpreting table see page 36.

Table 8.34: Correlations between pupil-level achievement and various school-level characteristics (Fifth class)

		Pupil Achievement	SES Dep score	School-level attendance	Pupil-teacher ratio	% attendance at P-T meetings
Pupil Achievement	r	1	**-.352**	**.134**	**.192**	.002
	t	-	-6.362	2.253	2.706	0.053
SES Deprivation score	r		1	**-.361**	**-.479**	**-.099**
	t		-	-3.139	-3.774	-0.929
School-level attendance	r			1	**.269**	**-.089**
	t			-	2.302	-0.858
Pupil-teacher ratio	r				1	**-.269**
	t				-	-3.585
% attendance at P-T meetings	r					1
	t					-

Significant correlations in bold. For help in interpreting table see page 36.

Summary

Approximately 95% of pupils attended schools where the main medium of instruction was English, while three-quarters attended schools where at least 95% of pupils spoke English or Gaeilge as their first language. Although approximately 10% of pupils in schools attended by both First and Fifth class pupils were in receipt of learning support, there was considerable variation between schools on this measure (ranging from no pupils to half of a school's enrolment). Almost all pupils attended schools where standardised tests of English were administered to at least some classes once a year. The tests were almost universally administered in First through Fifth classes, but less commonly in Infants and Sixth classes.

Almost all schools held parent-teacher meetings in the 2003/04 school year, while over 80% of pupils were enrolled in schools that had a Parents' Association. The literacy-related activity in which Parents' Associations were most likely to be involved was fundraising for materials. Approximately 15% of pupils' schools were designated disadvantaged and had the services of a HSCL co-ordinator. Over 70% of schools offered programmes designed to support parents in helping their child with English reading. Typically, such programmes involved the promotion of informal paired or shared reading activities rather than the implementation of a formal scheme.

At both First and Fifth class, pupils' principals agreed that the main obstacles to the teaching of reading in their schools were large classes, shortage of learning-support time, and lack of psychological services. The overall pupil-teacher ratio per school was 19:1 at both grade levels. Less than 3% of teaching staff were unqualified, but significant minorities of pupils were enrolled in schools where at least 10% of staff were unqualified.

First, but not Fifth, class pupils enrolled in schools with a low attendance rate achieved significantly lower mean achievement scores than pupils in schools with medium or high rates of attendance. The proportion of a school's enrolment in receipt of learning support was significantly associated with achievement only at Fifth class. However, there was a clear relationship at both grade levels between pupil achievement and a school's designated disadvantaged status, parental SES and educational attainment, and the proportion of a school's enrolment covered by the medical card or in receipt of the books grant. As the last four variables showed significant intercorrelations, they were combined to create a factor score – a school deprivation index.

9. Learning Support

This chapter is divided into three main sections. The first provides background information on learning-support teachers who completed the Learning-Support Teacher Questionnaire, including their qualifications, teaching experience, and participation in in-career development. The second section, which explores the work of learning-support teachers, includes details on teacher caseload, daily activities, and procedures for identifying and selecting pupils for learning support in English. The final section describes the provision of learning support in the school in which respondents received the questionnaire. Included in this section are descriptions of strategies and planning used for various aspects of learning support, and of resources available to learning-support teachers.

Of the 182 learning-support teachers in sampled schools, 172 (94.5%) returned completed questionnaires. These 172 teachers were working in 144 schools (95.4% of all schools surveyed). The questionnaire sought information on learning support for English as well as for Mathematics. Most respondents (95.3%) were involved in providing supplementary support for English, whereas considerably fewer (58.7%) provided support for Mathematics. General information on learning-support (for example teachers' background, caseload and general day-to-day activities) presented in this chapter includes responses from all those who completed the Learning-Support Teacher Questionnaire, while information specific to learning-support for English includes the responses only of those offering learning support for English. Information on learning support for Mathematics can be found in Shiel et al. (in preparation).

Unlike data presented in chapters 4 to 8, data in this chapter are unweighted and are not directly linked to pupil achievement. Thus, the unit of analysis in this chapter is the learning-support teacher rather than the pupil. As the data are unweighted, learning-support teachers working in large schools may be slightly over-represented. The questionnaire upon which the chapter is based – the Learning-Support Teacher Questionnaire – does not address the work of resource teachers.

Teachers' Background

Of the learning-support teachers who returned completed questionnaires, 88.4% were female and 11.6% male. Almost all respondents (98.2%) held a learning-support post that had been sanctioned by the DES. Number of years teaching experience ranged from one to 44 years, averaging 24 years. Respondents had spent an average of seven years working as learning-support teachers, but time spent as a learning-support teacher ranged from one to 30 years. Most (90.5%) respondents had at least 10 years teaching experience whereas only 20% had worked as a learning-support teacher for at least 10 years.

Almost half (48.5%) of respondents had completed a recognised one-year part-time (or equivalent) course in learning support, while a further 8.2% were completing such a course at the time of the survey. Thus close to half (43.3%) of respondents had not attended, nor were they attending, a one-year part-time course in learning-support, recognised by the DES.

In-Career Development

Respondents were asked how many days ICD, organised by sources other than the PCSP[1], they had attended. Excluding courses organised by the PCSP, 50% of respondents had attended ICD days related to learning support for English in the 12 months preceding the survey, while 72% had attended such ICD days in the last five years (Table 9.1). Respondents had attended an average of 2.4 such days in the previous year, and almost 9 days in the previous five years. In addition, 48% had attended ICD courses related to other topics in the previous 12 months, and 65% had done so in the five years preceding the survey. Respondents attended on average 2.4 such days in the previous year, and almost 9 days in the last five years.

Table 9.1: Percentages of respondents who had attended ICD (excluding that organised by the PCSP) related to learning support for English and to other topics in the previous year or previous five years, and mean number of such days attended

	12 months				5 years			
	N	% attended	Mean days	SD	N	% attended	Mean days	SD
LS for English	167	49.7	2.4	4.25	163	72.4	8.9	11.05
Other topics	166	48.2	2.4	4.07	124	64.5	8.6	10.19

Learning-support teachers were given a list of 11 topics, and asked if they were satisfied with how these topics were covered in the ICD days attended by them. Table 9.2 presents full details of ratings, by course type (PCSP, one-year part-time course, and other course types). Most respondents (83.5%) offered ratings for at least one topic covered in the PCSP courses attended by them, while 45.7% offered ratings for at least one topic in the one-year part-time course, and 48.1% for at least one topic covered by other course providers (e.g. summer course).

Satisfaction was generally high. For example, irrespective of course provider, at least 70% of those who attended ICD on the following topics were satisfied with how the topic was covered: implementing the learning-support guidelines (LSG) as they relate to English; assessing pupils' learning difficulties in English; developing or reviewing school policy on learning support for English; planning learning programmes for English for pupils in receipt of learning support; recording the progress made by pupils in receipt of learning support for English; implementing the 1999 Primary School English Curriculum (PSEC); and interpreting the outcomes of standardised tests of English.

Highest satisfaction levels were recorded for 'Assessing pupils' learning difficulties in English' and 'Interpreting the outcomes of standardised tests of English', as covered in a one-year part-time course in learning support. Lowest satisfaction levels (approximately half of respondents were dissatisfied) were recorded for 'Management of time' in PCSP and 'other' ICD courses. However, 66% of respondents were satisfied with how this topic was covered in the 1-year part-time course. The largest difference in satisfaction ratings for the various course providers was for the topic 'Interpreting the outcomes of standardised tests

[1] Since January 2002, learning-support teachers have been offered a minimum of 4 days ICD by the PCSP. Thus, respondents were not asked about PCSP-organised ICD. However, those recently appointed are likely to have experienced fewer than 4 days ICD on learning support topics.

of English', with which almost all attendees at the one-year part-time course, but only 71% of PCSP attendees, were satisfied.

Table 9.2: Percentage ratings of satisfaction with various topics across ICD courses

	PCSP			1-year part-time			Other		
	N	Satisfied	Not satisfied	N	Satisfied	Not satisfied	N	Satisfied	Not satisfied
Implement LS guidelines as they relate to English	126	88.9	11.1	54	96.3	3.7	49	87.8	12.2
Assess English learning difficulties	118	75.4	24.6	70	98.6	1.4	66	93.9	6.1
Develop/review school policy on LS for English	119	73.9	26.1	54	75.9	24.1	38	81.6	18.4
Plan English programmes for LS pupils	113	69.9	30.1	72	87.5	12.5	57	82.5	17.5
Record progress of pupils in receipt of LS for English	110	70.0	30.0	69	81.2	18.8	51	82.4	17.6
Framework underpinning the 1999 PSEC	111	83.8	16.2	37	67.6	32.4	31	71.0	29.0
Implementing the 1999 PSEC	120	85.0	15.0	41	82.9	17.1	37	78.4	21.6
Interpret outcomes of standardised tests of English	106	70.8	29.2	68	97.1	2.9	54	77.8	22.2
Time management	94	47.9	52.1	61	65.6	34.4	33	51.5	48.5
Work with class teachers	108	58.3	41.7	66	60.6	39.4	44	63.6	36.4
Work with parents	104	52.9	47.1	63	61.9	38.1	45	71.1	28.9

The Work of Learning-Support Teachers

This section describes the work of learning-support teachers in the schools in which they were surveyed. Where a respondent provided learning support to pupils in more than one school, they were asked to limit their responses to the school in which they received the questionnaire, unless otherwise specified.

Caseload

The number of schools in which respondents worked ranged from one to six. Most (61%) worked in one school only, while 18% worked in two schools and a further 21% worked in three or more schools. Learning-support teachers taught an average of 24 pupils in the sampled school, with an average total caseload of 31 pupils (Table 9.3). Those who worked in a single school dealt with an average of 30 pupils, while those who worked in two, or three or more schools, dealt with an average of 32 and 30 pupils, respectively.

Table 9.3: Percentages of learning-support teachers (SD) working in one or more schools, and caseload, in sampled school and in total

	1		2		3 or more		Total	
	N	%	N	%	N	%	N	%
% Teachers	106	61.3	39	17.9	35	20.8	172	100
Caseload (SD) in sampled school	100	30 (8.66)	31	16 (6.76)	34	10 (5.13)	165	24 (11.71)
Total caseload (SD)	100	30 (8.66)	29	32 (8.59)	32	30 (8.79)	161	31 (8.65)

Teachers who worked in more than one school were asked two supplementary questions about the effects of travel and caseload on their work. Those who worked in three or more schools were most likely to perceive negative effects on their work due to travelling between schools or due to large caseloads. While 50% of learning-support teachers who taught in three or more schools strongly agreed or agreed that there was insufficient time for teaching due to travelling, just 28% of learning-support teachers who worked in two schools agreed or strongly agreed with this (Table 9.4). Further, 72% of learning-support teachers who taught in two schools, and 63% of those who taught in three or more schools agreed or strongly agreed that there was insufficient time for teaching due to the number of pupils in their caseload.

Table 9.4: Percentages of learning-support teachers with shared posts indicating agreement with statements about travelling time and caseload, by number of schools in which they provide learning-support teaching

		N	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
Insufficient time for teaching due to travelling	2 schools	25	12.0	16.0	8.0	44.0	20.0
	3+ schools	34	32.4	17.6	8.8	38.2	2.9
	Total	59	23.7	16.9	8.5	40.7	10.2
Insufficient time for teaching due to size of caseload	2 schools	25	20.0	52.0	0.0	16.0	12.0
	3+ schools	34	44.1	17.6	5.9	32.4	0.0
	Total	59	33.9	32.2	3.4	25.4	5.1

Junior Infants pupils composed only a very small part of learning-support teachers' caseloads (less than 2% of the caseload of those working in vertical schools and none of the caseload of those working in Junior schools) (Table 9.5). For those teaching in Junior and vertical schools, First class was the grade in which the largest proportion of pupils received support in English. For those teaching in Senior schools, Second class pupils formed 36% of teachers' caseloads. Thus, learning-support for English appears to be targeted at the younger end of the spectrum in all school types.

Table 9.5: Percentage of respondents' caseloads at each grade level, by school type

	Junior		Senior		Vertical	
	N tchrs	Mean (SD)	N tchrs	Mean (SD)	N tchrs	Mean (SD)
Junior Infants	19	0.0	–	–	107	1.7 (6.39)
Senior Infants	19	28.5 (19.75)	–	–	108	17.2 (18.40)
1st class	19	45.9 (21.14)	–	–	108	25.5 (19.23)
2nd class	15	26.2 (16.64)	24	35.6 (24.94)	108	17.1 (13.67)
3rd class	–	–	34	27.8 (18.60)	108	12.7 (12.25)
4th class	–	–	34	15.9 (12.48)	108	9.7 (10.92)
5th class	–	–	34	16.1 (11.68)	108	10.9 (13.39)
6th class	–	–	34	14.3 (15.07)	108	5.3 (10.40)

Percentages for each grade level should be treated separately, and columns not summed, as the number of grades offered by Junior and Senior schools is not uniform. Some Junior schools offer 2nd class, as do some Senior schools.

Day-to-Day Activities of Learning-Support Teachers

The majority of teachers' time (65.9%) was spent providing learning support for English to pupils, while 3.7% of their time was spent in contact with teachers regarding learning support for English. An average of 19.3% of time was spent providing learning support in

Mathematics, with 3.0% of time spent in contact with parents, 2.7% in contact with principals, and 5.5% on other activities. The proportion of time spent in contact with pupils, teachers, parents, and principals varied little by the number of schools in which respondents provided learning support.

Learning-support teachers were asked to indicate what percentage of their pupils' parents they had met at group or individual meetings since the start of the academic year. Three and a half percent indicated that no individual meetings had been held, while 44.2% indicated that there had been no group meetings. Where individual meetings were held, an average of 74.8% of pupils' parents were reported to have attended, while attendance at group meetings averaged 49.7%. Over a third (35.4%) of respondents who held such meetings (individual and/or group) indicated that class teachers had been asked to attend.

Four-fifths (82.6%) of respondents indicated that they never provided learning support to pupils in the pupils' own classroom. Among those who did, 31.0% did so because they occasionally taught whole-class groups, 27.6% because it was school policy, and 31.0% for reasons of personal preference. Seven (24.1%) offered other reasons for teaching in the pupils' own classroom, including team teaching, for group or class contact, and to introduce early intervention programmes in conjunction with the class teacher.

Learning-support teachers were presented with a list of activities and asked, for First and Fifth class, what percentage of their instructional time in English was spent on each (Table 9.6). There were slightly different emphases on teaching activities between the two grade levels. For example, learning or using comprehension strategies by pupils formed 15% of Fifth class lesson time, compared to 7% of time in First class lessons. In contrast, teaching phonics comprised 13% of teaching time with First class pupils, but only 7% of class time in Fifth class. At both grade levels, at least 20% of instruction time was spent engaging pupils in reading new or familiar materials aloud, while less than 4% of time was spent on pupils listening to the teacher read aloud. In addition, formal or informal diagnostic testing and pupils reading silently each comprised no more than 5% of instruction time at either grade level.

Table 9.6: Mean percentage of teaching time spent on various activities in English learning-support lessons

	1st class			5th class		
	N	Mean %	SD	N	Mean %	SD
Oral language development	116	13.1	9.19	116	9.9	7.57
Pupils reading familiar material aloud	116	9.9	7.08	116	8.6	7.68
Pupils reading new material aloud	116	10.1	9.15	116	12.7	10.85
Teacher reading aloud	116	4.0	3.48	116	2.6	2.77
Pupils reading silently	116	1.8	2.45	116	5.1	8.97
Pupils writing	116	8.6	5.74	116	11.3	7.32
Pupils learning phonological awareness	116	13.6	6.74	116	7.2	6.89
Pupils learning phonics	116	13.1	8.36	116	6.8	5.97
Pupils learning word id skills other than phonics	116	8.0	6.16	116	6.8	5.62
Pupils learning/using comprehension strategies	116	6.6	5.51	116	15.1	9.22
Pupils learning spellings	116	4.2	4.43	116	6.3	5.42
Formal or informal diagnostic testing	116	4.0	3.41	116	3.6	3.20
Other activities	115	3.0	3.98	116	4.1	6.44

Learning-support teachers were asked how much emphasis they placed on various English lesson activities, at First and Second class and at Third to Sixth class (i.e. in Junior and Senior classes). The amount of emphasis placed on activities did not vary much from Junior to Senior class levels (Tables 9.7). All respondents placed either a lot or some emphasis on developing pupils' general self-esteem and self-confidence at all class levels. Almost all also reported giving the teaching of reading or problem-solving skills not covered in pupils' English class a lot or some emphasis when working with Junior or Senior classes. While over one-third gave little or no emphasis to directly supporting or reinforcing work done in the pupils' regular English class, this activity received some or a lot of emphasis from 64% of respondents in Junior classes, and from 66% in Senior classes.

Table 9.7: Percentages of learning-support teachers indicating how much emphasis they place on various activities during learning-support classes, by grade level

		A lot of emphasis	Some emphasis	Only a little emphasis	No emphasis
	N	*Directly supporting or reinforcing work done in pupils regular English class*			
1st & 2nd	148	26.4	37.8	24.3	11.5
3rd to 6th	140	20.0	45.7	25.0	9.3
		Teaching reading/problem solving skills not covered in pupils' English class			
1st & 2nd	147	70.1	25.2	2.7	2.0
3rd to 6th	139	76.3	21.6	0.7	1.4
		Developing pupils' general self esteem and self-confidence			
1st & 2nd	148	89.9	10.1	0	0
3rd to 6th	140	85.0	15.0	0	0

The majority of respondents (91.8%) indicated that they were involved in producing individual profiles and learning programmes for pupils in receipt of learning support. Further, 80% said that this was done in conjunction with classroom teachers, and 43.5% said it was done in conjunction with the parents of the pupils.

Selection and Grouping of Pupils

Learning-support teachers were asked about methods of grouping pupils for learning support in English. One-third (34%) indicated that they grouped pupils according to their assessed achievement in reading. Thirty-two percent grouped pupils according to class levels, while 26% grouped them according to their learning needs in English. Eight percent used a combination of methods.

Learning-support teachers were asked what criteria they used to identify and select pupils for learning support in English (Table 9.8). The most commonly used criteria were the results of a standardised test (always used by 87% of respondents) or outcomes on an early screening test (always used by 60% of respondents). One-third always used teacher checklists, while 44% always used structured teacher observations, and 40% always used advice from other professionals. Parental concerns were always a criterion for 17% of learning-support teachers, and sometimes for 70% of respondents.

Table 9.8: Percentages of learning-support teachers indicating which criteria they used to identify and select pupils for learning support for English

	N	Always	Sometimes	Rarely	Never
Outcomes on a standardised test	164	87.2	11.6	1.2	0.0
Outcomes on an early screening test	150	60.0	24.0	6.7	9.3
Teacher checklists	159	33.3	50.9	11.3	4.4
Structured teacher observations	162	43.8	48.8	5.6	1.9
Parental concerns/ feedback	161	17.4	69.6	11.8	1.2
Advice from other professionals	161	39.8	47.8	9.3	3.1
Other	157	5.1	6.4	0.6	87.9

Standardised tests were used by over 95% of respondents to identify and select pupils in First through Sixth class. The standardised tests most commonly used were the Mary Immaculate College Reading Attainment Test (MICRA-T) or the Drumcondra Primary Reading Test (DPRT), with a combination of tests also commonly used at First class.

Learning-support teachers were asked to indicate the percentile point used as the cut-off point to identify and select pupils for learning support (the DES recommended percentile cut-off point is at or below the 10th percentile, or up to and including the 12th percentile to allow for measurement error). The mean cut-off points used by learning-support teachers ranged from 14.9 (at Fifth class) to 16.1 (at Second class) (Table 9.9). Only 1% of respondents used a more stringent cut-off point than the 10th percentile at *any* grade level, while at least 14% at each grade level used the 20th percentile or higher as their chosen cut-off. Thus, many pupils who would not be recognised by DES guidelines as in need of learning support are being selected.

Table 9.9: Mean percentile cut-off point on standardised tests used to identify and select pupils for learning support, by grade level

	1st (N=98)	2nd (N=115)	3rd (N=118)	4th (N=116)	5th (N=118)	6th (N=101)
Tests used	99.2	98.6	98.6	98.6	97.9	95.3
Mean cut-off point (SD)	15.6 (5.79)	16.1 (6.64)	15.8 (6.57)	15.4 (6.57)	14.9 (6.46)	15.4 (6.79)

Learning-support teachers were asked at what time of the year, and at what class levels, early screening tests such as the Belfield Infant Assessment Profile (BIAP) and the Middle Infant Screening Test (MIST) are used to identify pupils for learning support for English. Most respondents used early screening tests during the Spring or Summer (75.6%), with just 26.8% using them during the Autumn, and 8.9% during the Winter. Almost three-quarters of respondents used early screening tests at Senior Infants, with over one-quarter using such tests with each of First, Second and Third classes (Table 9.10). Early screening tests were less likely to be administered to Junior Infants pupils.

Table 9.10: Percentages of learning-support teachers indicating at what class levels they use early screening tests

	N	Yes	No
Junior infants	157	17.2	82.8
Senior Infants	157	72.6	27.4
First class	157	29.9	70.1
Second class	157	26.8	73.2
Third class	157	25.5	74.5
Other	157	15.9	84.1

Learning-support teachers were asked to indicate the number of times learning support for English appears on the agenda for staff meetings. Just over half (52.1%) indicated that it was on the agenda one to two times a year, while 14.1% said it was never on the agenda. Almost one-fifth (19.0%) said it was on the agenda three to four times a year, with only 11.0% indicating that it was on the agenda more than four times a year.

Learning Support in the Surveyed Schools

Respondents were asked a number of factual and opinion items relating to their experience as a learning-support teacher. As a number of respondents provided learning support to more than one school, all respondents were asked to answer the questions only in relation to the school in which they received the questionnaire. Topics included teachers' familiarity with and usefulness of the DES LSG (2000), the interaction between learning support and classroom activities, organisation of learning support, strategy and planning, and resources.

Most respondents believed that class teachers were somewhat familiar with the LSG for English, with just 23% believing that such teachers were very familiar with them (Table 9.11). Almost two-thirds very much agreed that the LSG were being implemented in their school, while just under one-third somewhat agreed that this was true (Table 9.12). However, 1% felt that the LSG were not being implemented in their school, while 4% were unsure of the extent to which they were being implemented. Almost all found the LSG for English very useful or somewhat useful, while less than 5% thought they were not very useful or not at all useful.

Table 9.11: Percentages of learning-support teachers indicating how familiar they believe class teachers are with the LSG for English

	Very familiar	Somewhat familiar	Not familiar
How familiar are class teachers with the LSG for English? (N=163)	22.7	65.6	11.7

Table 9.12: Percentages of learning-support teachers indicating agreement that the LSG for English are being implemented, and usefulness of the LSG to learning-support teachers

	Very much so	Somewhat	Unsure	Not a lot	Not at all
Are LSG as they relate to the provision of English being implemented? (N=163)	63.8	30.7	4.3	1.2	0.0
How useful are the LSG to LS teachers for English? (N=164)	56.1	37.2	2.4	3.7	0.6

Respondents indicated their level of agreement with a number of statements regarding learning-support provision in the school (Table 9.13). Most (91%) either agreed or strongly agreed that responsibility for the progress of a pupil receiving learning support was shared jointly by the class and learning-support teacher. At least 70% also agreed or strongly agreed that there was adequate support from class teachers in implementing learning-support programmes, that the class teacher assumed primary responsibility for the reading development of pupils receiving learning-support, and that learning support was meeting the needs of pupils with learning difficulties in English reading and writing.

However, 18% were unsure if the level of co-ordination between class and learning-support programmes was satisfactory, while a further 13% felt that it was not. Thirty-five percent were either unsure of their response, or agreed that there was a lack of support from parents of pupils in receipt of learning support. Finally, less than half (45%) of learning-support teachers felt that class teachers adequately differentiated their instruction for pupils in receipt of support.

Table 9.13: Percentages of learning-support teachers expressing various levels of agreement about learning support provision in their school

	N	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
Satisfactory level of co-ordination between class & LS programmes	162	21.0	48.8	17.9	12.3	0
Responsibility for the progress of a pupil receiving LS is shared jointly by the class and LS teachers	164	39.6	51.2	3.7	4.9	0.6
Class teacher assumes primary responsibility for reading development of pupils receiving LS	164	28.7	48.2	14.6	7.3	1.2
Adequate support from class teachers in implementing LS programmes	164	25.0	57.9	11.0	6.1	0
LS is meeting the needs of pupils with learning difficulties in English reading/writing	163	27.6	45.4	15.3	9.2	2.5
Lack of support from parents of pupils in receipt of LS	163	4.3	13.5	17.2	46.6	18.4
Inadequate differentiation of instruction by class teachers for pupils in receipt of LS	163	6.1	16.0	33.1	38.0	6.7

Strategy and Planning

Learning-support teachers were asked to rate their level of involvement in various school activities relating to learning support and prevention of learning difficulties (Table 9.14). At least three-quarters were greatly involved or somewhat involved in each activity. Most maintained regular planning and progress reports for pupils in receipt of learning support (97% were greatly or somewhat involved), implemented whole-school procedures for selecting pupils for learning support (93%), and contributed to the development of policy on learning support in their school (91%). Slightly fewer were involved in contributing to decision making regarding the purchase of learning resources (86%), and advising class teachers on the assessment and teaching of pupils in receipt of learning support (84%). Learning-support teachers were least likely to be involved in implementing whole-school strategies to enhance early learning and prevent learning difficulties, with 23% involved only a little or not at all. Of the teachers who held a shared learning-support role, 85% were greatly or somewhat involved in performing a defined role in coordinating the provision of learning support to more than one school.

Table 9.14: Percentages of respondents indicating the extent of their involvement in various school activities

	N	Greatly involved	Somewhat involved	Only a little involved	Not involved
Advise class teachers on the assessment and teaching of pupils in receipt of LS	171	49.7	34.5	13.5	2.3
Implement whole school strategies to enhance early learning prevent learning difficulties	170	44.7	32.4	14.7	8.2
Maintain regular planning and progress reports for those pupils in receipt of LS	172	84.3	12.8	2.9	0
Implement whole-school procedures for selecting pupils for LS	172	80.2	12.8	5.2	1.7
Contribute to the development of policy on LS in this school	170	71.2	19.4	4.7	4.7
Contribute to decision making in this school regarding the purchase of learning resources	172	61.6	24.4	9.3	4.7
Perform a defined role in coordinating the provision of LS to more than one school (if hold a shared learning-support post)	68	57.4	27.9	1.5	13.2

Learning-support teachers were asked to rate their level of agreement with various statements relating to learning support for English in their school (Table 9.15). Almost all agreed or strongly agreed that there was a clear policy on the provision of learning support in their school and that their school supported them in accessing relevant ICD opportunities. Further, 78% strongly agreed or agreed that the approach to learning support is a team approach involving all teachers. Disagreement was highest (12%) when asked if they believed that the criteria in the LSG for the selection of pupils for learning support were adhered to in their school.

Table 9.15: Percentages of learning-support teachers' indicating their level of agreement with various statements about learning support for English

	N	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
There is a clear policy on provision of LS	163	58.9	31.9	3.1	6.1	0
The school supports me in accessing relevant ICD opportunities	159	49.7	44.7	5.7	0	0
The approach to LS is a team approach involving all teachers	163	31.3	46.6	14.7	7.3	0
The criteria in the LSG for the selection of pupils for LS are adhered to	164	35.4	46.3	6.7	8.5	3.0

Resources

Almost all respondents (92%) indicated they had access, as needed, to a computer with a CD-ROM drive, while 69% had access to a computer with an internet connection (Table 9.16). Further, 86% had access to a secure system for storing pupil records, whether electronic or paper. In addition, 91% of respondents agreed that they had access to a suitable room in which to provide learning support.

Table 9.16: Percentages of learning-support teachers indicating they have access to various facilities at school

	N	Yes	No
Suitable room in which to provide learning support	172	91.3	8.7
Secure system for storing pupil records, whether electronic or paper	172	86.0	14.0
Access, as needed, to computer with CD-ROM drive	172	91.9	8.1
Access, as needed, to computer with Internet connection	172	68.6	31.4

Just over three-quarters (78.7%) of respondents disagreed or strongly disagreed that the accommodation provided for learning-support teaching was unsatisfactory in their school, whereas only 17.1% agreed or strongly agreed that it was. Further, 76.8% of respondents disagreed or strongly disagreed that there was a shortage of suitable books and other learning materials for learning support in the school, while 18.9% agreed or strongly agreed with this statement.

Summary

Most respondents were experienced teachers, but only 57% had completed or were completing a recognised course in learning support. In addition to PCSP-organised ICD, respondents averaged just under five ICD days on learning support in the previous year and 18 such days in the previous five years. Time management was the ICD topic with which fewest were satisfied. Just under 40% of learning-support teachers worked in two or more schools. Caseloads averaged 24 pupils in the schools surveyed, and 31 pupils in total. In the school year in which the survey was conducted, three-quarters of pupils' parents attended individual meetings with the learning-support teachers, while almost half attended group meetings organised by them. Over 80% of respondents never provided learning support in the pupils' own classroom. Among those who did, school policy, personal preference, and teaching whole-class groups were cited as the main reasons.

Emphasis on teaching activities differed slightly between the two grade levels. Pupils learning or using comprehension strategies received more time at Fifth than at First class, while teaching phonological awareness and phonics received more time at First than at Fifth. At both grades, pupils reading familiar or new material aloud received 20% of teaching time compared to less than 4% for teachers reading aloud. Pupils reading silently composed 2% of time with First class pupils and 5% with Fifth class pupils. The most commonly used criteria for identifying and selecting pupils for learning support for English were the outcomes on standardised achievement and early screening tests.

Eighty-eight percent of respondents believed that class teachers were at least somewhat familiar with the LSG. Most also believed that the LSG were being implemented in their schools and were useful to learning-support teachers. However, only 73% agreed that learning support was meeting the needs of pupils in their school with learning difficulties in English reading or writing. Further, only slightly less than half felt that class teachers adequately differentiated their instruction for pupils in receipt of learning support.

10. Views of Inspectors

At the time of the survey administration, 65 members of the Inspectorate were primary school 'field inspectors' (i.e., they were directly involved in inspecting schools and classes). All 65 were invited to complete an Inspector Questionnaire. Fifty-one completed questionnaires were returned, giving a response rate of 78.5%. This chapter summarises some of the responses provided.

Inspector Characteristics

Respondents had spent an average of 10 years and six months as inspectors, with only 10% in their first year in the role. Over the two years prior to being surveyed, respondents had observed First class English lessons in an average of 23.9 schools, and Fifth class English lessons in an average of 21.8 schools. Only 6% had not observed any First class lessons and only 2% had not observed any at Fifth class. Frequently, more than one class per grade level was observed in each school. Thus, an average of 32.4 First class English lessons had been observed, and an average of 28.6 at Fifth class. In total, the inspectors had observed 1,586 First class English lessons and 1,399 Fifth class English lessons in the two years prior to the survey.

During the same time, the inspectors had completed an average of 16.3 School Reports that included English at First class, and 14.7 that involved English at Fifth class. The average number of diploma examinations carried out on probationary teachers in the last two years was 43.7, with only 4% of those surveyed not having completed any. When asked about their familiarity with various research reports, only 2% indicated that they were not familiar with the results of the PISA survey. Twenty percent indicated that they were very familiar with the results, with the remaining 78% indicating that they were somewhat familiar. Thirty-two percent were very familiar with the results of NAER 98, 54% were familiar, and 14% said that they were not familiar with the results. Lack of familiarity with NAER 98 tended to be higher among the more recently appointed inspectors.

Perceived Effectiveness of English Teaching Strategies

Inspectors were presented with a list of strategies for teaching English, and asked to indicate which approaches they believed to be effective. All felt that class discussion of a story and teaching pupils to use comprehension strategies were effective approaches at both First and Fifth class (Table 10.1)[1]. Similarly, all thought that using a variety of texts was an effective strategy to use with Fifth class pupils, although one inspector felt that it was not an effective strategy to use with First class pupils.

[1] Although respondents used a 4-point scale, Table 10.1 summarises responses into ratings of effective (i.e., 'very effective' or 'effective') and ineffective (i.e., 'very ineffective' or 'ineffective'). This facilitates comparison between responses relating to First and Fifth class, as data can be presented side by side. A similar approach (compressing a 4-point scale) is used in many other tables in this chapter.

At least 84% believed that grouping of pupils into similar ability groups, grouping them into mixed ability groups, using ICT, and engaging pupils in silent reading were effective ways to teach English to First and Fifth class pupils. However, only 76% believed that a pupil reading aloud was an effective strategy to use in Fifth class. Inspectors' views on the efficacy of using workbooks and worksheets on a daily basis were in contrast to the largely positive ratings assigned to other strategies. Eighty-eight percent believed daily use of such materials with First class pupils was ineffective, while 74% believed it to be ineffective with Fifth class pupils.

Table 10.1: Percentage of inspectors who rated various teaching strategies as effective

	1st class			5th class		
	N	Effective	Ineffective	N	Effective	Ineffective
Class discussion of a story	51	100.0	0.0	46	100.0	0.0
Teaching comprehension strategies	51	100.0	0.0	46	100.0	0.0
Using a variety of texts	51	98.0	2.0	46	100.0	0.0
Grouping pupils in similar ability groups	49	85.7	12.3	45	84.4	15.6
Grouping pupils in mixed ability groups	51	84.3	15.7	46	91.3	8.7
Using ICT to teach English	51	88.2	11.8	46	89.1	10.9
Silent reading	51	86.3	13.7	46	97.8	2.2
Pupils reading aloud	51	86.3	13.7	45	75.6	24.4
Daily use of workbooks/worksheets	51	21.6	88.4	46	26.1	73.9

Teachers' Day-to-Day Activities

Inspectors were asked to indicate their views on a number of aspects of day-to-day activities carried out by teachers. Satisfaction ratings were sought for the balance between whole-class, group, and individual work, for how certain aspects of the curriculum were taught, for the availability of teaching resources, and for how teachers used available resources.

Balancing Whole-Class, Group, and Individual Work

Inspectors were asked to indicate how satisfied they were with the balance between whole-class, group, and individual work in English lessons. Over half were satisfied with the balance they observed in single-grade and multi-grade settings at both First and Fifth class (Table 10.2). Satisfaction was highest for multi-grade First classes and lowest for single-grade Fifth classes (where only 55% were satisfied with the balance achieved by teachers).

Table 10.2: Percentage of inspectors satisfied with the balance between whole class, group and individual work in single- and multi-grade classes

	1st class			5th class		
	N	Satisfied	Dissatisfied	N	Satisfied	Dissatisfied
Single-grade classes	50	56.0	44.0	50	55.1	44.9
Multi-grade classes	49	71.4	28.6	48	64.6	35.4

Teaching Specific Aspects of the English Curriculum

Inspectors were asked to rate their satisfaction with the teaching of 20 specific aspects of the curriculum, including teaching writing processes, word meanings, study strategies, purposes and forms of writing, phonics, identification of onset and rime, higher-level word-attack skills, grammar, comprehension strategies, children's literature, basic word identification, and the application of syntactic and semantic cues. Also covered were developing pupils' spelling, reference skills, phonemic awareness, oral language, comprehension of narrative texts, comprehension of expository/informational texts, and comprehension of documents/representational text.

Table 10.3 shows, for First class, the three aspects of teaching for which greatest satisfaction was recorded, and the three aspects for which least satisfaction was recorded (details of ratings for all 20 aspects are available in Table 10.A1 on http://www.erc.ie/naer04/e-appendix). For First class pupils, over 90% of inspectors were satisfied or very satisfied with how teachers developed phonemic awareness and taught phonics and basic word identification (Table 10.3). However, just over half (53%) were dissatisfied or very dissatisfied with how First class pupils were taught writing processes, while at least two-thirds were dissatisfied or very dissatisfied with how teachers developed pupils' comprehension of representational text and developed comprehension strategies.

Table 10.3: Aspects of the teaching of English to First class with which inspectors expressed most and least satisfaction

		N	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
Most satisfied	Teaching basic word identification	50	22.0	74.0	4.0	0.0
	Teaching phonics	49	20.4	73.5	6.1	0.0
	Developing phonemic awareness	50	16.0	76.0	8.0	0.0
Least satisfied	Teaching writing processes	49	10.2	36.7	49.0	4.1
	Teaching comprehension strategies	50	2.0	32.0	60.0	6.0
	Developing comprehension of representational text	49	4.1	26.5	65.3	4.1

Significant minorities of inspectors were dissatisfied with the teaching of many of the 20 aspects at First class. For example, between one-quarter and half were dissatisfied with how First class pupils were taught about children's literature, grammar, the application of semantic and syntactic cues, and with how teachers developed pupils' oral language, spelling, reference skills, and comprehension of expository texts. Further, just over half were dissatisfied with how First class pupils were taught about the purposes and forms of writing. Table 10.4 shows, for Fifth class, the three aspects of teaching for which greatest satisfaction was recorded, and the three aspects for which least satisfaction was recorded (details of ratings for all 20 aspects are available in Table 10.A2). At least 80% of inspectors were satisfied with the teaching of word meanings to Fifth class pupils, and with the development of comprehension of narrative texts. A majority were also satisfied with the teaching of children's literature (74%) and the application of semantic cues (57%). However, 64% of inspectors were dissatisfied or very dissatisfied with the development of comprehension of representational text in Fifth class pupils, while 70% were similarly unhappy with the teaching of study strategies in Fifth class.

Table 10.4: Aspects of the teaching of English to Fifth class with which inspectors expressed most and least satisfaction

		N	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
Most satisfied	Teaching word meanings	50	14.0	74.0	12.0	0.0
	Developing comprehension of narrative texts	50	12.0	68.0	20.0	0.0
	Teaching children's literature	50	14.0	60.0	24.0	2.0
Least satisfied	Teaching application of semantic cues	45	0.0	56.6	44.4	0.0
	Teaching study strategies	50	0.0	30.0	64.0	6.0
	Developing comprehension of representational text	50	4.0	32.0	60.0	4.0

Generally, dissatisfaction levels were higher for Fifth than for First class. For example, at least a quarter of inspectors were dissatisfied with 18 of the 20 aspects of teaching listed where Fifth class was considered. Over one-third were dissatisfied with how the following aspects of the curriculum were taught to Fifth class: developing oral language; teaching phonics; teaching the purposes and forms of writing; teaching writing processes; developing comprehension of expository/informational texts; teaching the application of syntactic cues; teaching comprehension strategies; and, teaching higher-level word-attack skills.

Availability and Use of Resources

Inspectors were asked about the extent to which they were satisfied with the availability of and the extent of use of, a number of resources for English lessons. As shown in Tables 10.5 to 10.7, satisfaction with the availability of resources was reasonably high for most types of resources. However, in most cases, the percentage of inspectors who were satisfied with the availability of a resource exceeded the percentage that was satisfied with the extent to which that resource was used in English lessons.

Just over three-quarters of inspectors were satisfied with the availability of computers for use in First and Fifth class English lessons (Table 10.5). However, only 30% were satisfied with the extent to which computers were used in First class English lessons, falling to only 25% when Fifth class lessons were considered. Approximately two-thirds were satisfied with the availability of software for teaching English, but, as with computers, satisfaction was lower when use of, rather than availability of, software was considered. Only 33% of inspectors were satisfied with the extent to which software was used in First class English lessons – a figure that fell to 27% when Fifth class lessons were considered.

Most inspectors were satisfied with the availability and use of fiction texts for First and Fifth class (Table 10.6). Less than two-thirds were satisfied with the availability of non-fiction texts at both grades, while approximately half were satisfied with the extent to which such texts were used. Seventy percent were satisfied with the availability of reference texts in First class, while 54% were satisfied with the extent to which such texts were used. Eighty-four percent were satisfied with the availability, and 68% satisfied with the use of reference texts in English lessons in Fifth class. Almost two-thirds were satisfied with the availability of workbooks and worksheets at both grades, but satisfaction levels with the use of these materials were much lower. Over two-thirds were satisfied with the availability of new library materials and of class library space, and with their use, at both First and Fifth class (Table 10.7).

Table 10.5: Percentage of inspectors who were satisfied or dissatisfied with the availability and use of ICT for teaching English lessons

	1st class			5th class		
	N	Satisfied	Dissatisfied	N	Satisfied	Dissatisfied
Availability of computers	50	76.0	24.0	50	78.0	22.0
Use of computers	50	30.0	70.0	48	25.0	75.0
Availability of software for teaching English	50	68.0	32.0	50	62.0	38.0
Use of software for teaching English	50	33.0	67.0	49	26.5	73.5

Table 10.6: Percentage of inspectors who were satisfied or dissatisfied with the availability and use of various types of texts for teaching English lessons

	1st class			5th class		
	N	Satisfied	Dissatisfied	N	Satisfied	Dissatisfied
Availability of fiction texts	50	78.0	22.0	50	82.0	18.0
Use of fiction texts	50	70.0	30.0	49	81.2	18.8
Availability of non-fiction texts	50	56.0	44.0	50	64.0	36.0
Use of non-fiction texts	50	50.0	50.0	50	48.0	52.0
Availability of reference texts	50	70.0	30.0	49	83.7	16.3
Use of reference texts	50	54.0	46.0	50	68.0	32.0
Availability of workbook/sheets	49	65.3	34.7	49	61.2	38.8
Use of workbooks/worksheets	49	40.8	59.1	48	41.7	58.3

Table 10.7: Percentage of inspectors who were satisfied or dissatisfied with the availability and use of library materials for teaching English lessons

	1st class			5th class		
	N	Satisfied	Dissatisfied	N	Satisfied	Dissatisfied
Availability of class library space	50	72.0	28.0	50	70.0	30.0
Use of class libraries	50	80.0	20.0	50	70.0	30.0
Availability of new library materials	50	76.0	24.0	50	72.0	28.0
Use of library materials	50	76.0	24.0	50	68.0	32.0

Provision of Learning Support

Inspectors were asked a number of questions about aspects of learning-support provision at First and Fifth class. Satisfaction levels tended to be higher for provision at First class than for provision at Fifth class (Table 10.8). A majority were satisfied or very satisfied with the quality of provision in both First and Fifth class (90% and 69%, respectively). Although no inspectors indicated that they were very dissatisfied with the quality of provision at either grade level, 31% were dissatisfied with provision in Fifth class, compared to 10% who were dissatisfied with the quality of provision in First class. Most were also satisfied with the identification and selection of pupils for learning support at both First and Fifth class. However, 16% were dissatisfied at First class, a percentage that rose to 34% at Fifth class.

Overall satisfaction levels were lower when asked about the co-ordination of the work of learning-support and class teachers. Only 4% of inspectors were very satisfied

with co-ordination at First class, while none was very satisfied at Fifth class. Indeed, 56% and 60% (First and Fifth class, respectively) were dissatisfied or very dissatisfied with the co-ordination. Similarly, only 34% of inspectors were satisfied or very satisfied with the integration between class and learning-support programmes at First class, a percentage that fell to 26% when integration at Fifth class was considered.

Satisfaction was also low in relation to the involvement of parents in learning-support programmes. Sixty-four percent of inspectors were dissatisfied or very dissatisfied with parental involvement in learning support at First class – a percentage that rose to 74% when Fifth class was considered. Finally, in response to a question about their overall satisfaction with the duration of learning-support programmes for individual pupils, two-thirds (66%) of inspectors were either satisfied or very satisfied, while 34% were dissatisfied or very dissatisfied.

Table 10.8: Percentage of inspectors expressing various levels of satisfaction with aspects of learning-support provision

		Very satisfied	Satisfied	Dissatisfied	Very Dissatisfied
	N	*Quality of provision of LS*			
1st class	49	18.4	71.4	10.2	0.0
5th class	49	6.1	63.3	30.6	0.0
		Identification and selection of pupils for LS			
1st class	50	18.0	66.0	16.0	0.0
5th class	50	12.0	54.0	34.0	0.0
		Co-ordination of the work of LS and class teachers			
1st class	50	4.0	40.0	48.0	8.0
5th class	50	0.0	40.0	54.0	6.0
		Integration of class and LS programmes			
1st class	50	4.0	30.0	52.0	14.0
5th class	50	0.0	26.0	56.0	18.0
		Involvement of parents in the LS programme			
1st class	50	2.0	34.0	52.0	12.0
5th class	50	0.0	26.0	62.0	12.0
		The general duration of LS programmes			
General	50	6.0	60.0	30.0	4.0

Teacher Knowledge and Professional Development Needs

Inspectors were asked about their perceptions of teachers' knowledge and understanding of the English curriculum and of methods for teaching English. They were also asked to identify topics they felt needed more attention in teachers' pre-service training and in-career development (ICD).

Most (over 80%) inspectors believed that First and Fifth class teachers had either a very comprehensive or a quite comprehensive knowledge of English language structure and grammar (Table 10.9). However, they were less positive when rating teachers' understanding of the English curriculum or knowledge of methods for teaching English. Only 6% of inspectors believed that First class teachers and only 4% that Fifth class teachers had a very comprehensive understanding of the English curriculum. Thirty-six

percent rated First class teachers as having a somewhat or very limited understanding of the English curriculum, a percentage that rose to 42% when Fifth class teachers were considered. Finally, over half of the inspectors believed that First and Fifth class teachers had a somewhat or very limited knowledge of methods for teaching English.

Table 10.9: Percentages of inspectors providing various ratings of teachers' knowledge of English, of the English curriculum and of teaching methods for English

		Very comprehensive	Quite comprehensive	Somewhat limited	Very limited
	N	*Knowledge of English language structure and grammar*			
1st class	50	10.0	76.0	14.0	0.0
5th class	50	8.0	74.0	14.0	4.0
		Understanding of the English curriculum			
1st class	50	6.0	58.0	34.0	2.0
5th class	50	4.0	54.0	36.0	6.0
		Knowledge of methods of teaching English			
1st class	49	4.1	40.8	53.1	2.0
5th class	50	2.0	42.0	50.0	6.0

Inspectors were presented with a list of 20 topics, and asked to indicate which topics they believed needed more attention in teachers' pre-service training and ICD. All of the 20 topics listed were identified by at least 30% of inspectors as needing more attention. Full details of responses are available in the e-appendix (Table 10.A3), while Table 10.10 presents the topic areas rated by over two-thirds of inspectors as needing more attention.

Almost three-quarters of inspectors felt that teachers of First and Fifth class pupils needed more pre-service training and ICD on how to develop pupils' oral language. Sixty-nine percent felt that First class teachers needed more pre-service training on how to teach the purposes and forms of writing, while 59% felt that this was true of Fifth class teachers. Close to four in five inspectors felt that First and Fifth class teachers needed more ICD on teaching the purposes and forms of writing; 69% believed that both First and Fifth class teachers needed more ICD on teaching writing processes; and over half believed that more pre-service training on writing processes (for teachers at each grade level) was required. Just over two-thirds of inspectors felt that Fifth class teachers needed more pre-service training and more ICD on how to teach study strategies (ratings were not requested for First class).

Table 10.10: Percentage of inspectors indicating that more pre-service training or ICD was required on various topics

	1st class			5th class		
	N	Pre-service	ICD	N	Pre-service	ICD
Developing oral language	49	73.5	73.5	49	73.5	71.4
Teaching purposes and forms of writing	49	69.4	79.6	49	59.2	77.6
Teaching writing processes	49	57.1	69.4	49	51.0	69.4
Teaching study strategies	49	–	–	49	69.4	67.3

The Teaching of Pupils with Differing Abilities

Seventy percent of inspectors were satisfied with how First class teachers identified and addressed common spelling errors, while 78% were satisfied with how they identified pupils' learning difficulties in English (Table 10.11). Satisfaction with these issues was slightly lower when Fifth class teachers were considered (64% of inspectors were satisfied with the identification of spelling problems, while 66% were satisfied with the identification of learning difficulties). Seventy-four percent were satisfied with how teachers identified and addressed common grammar problems in both First and Fifth class.

Up to two-thirds of inspectors were satisfied with the teaching of English to pupils whose first language was not English or Irish. Fifty-four percent were satisfied with how First class teachers were addressing the needs of pupils with learning difficulties in English, but this figure fell to 44% when Fifth class teachers were considered. More than half of those surveyed were satisfied with the teaching of English to First and Fifth class pupils with a high ability in English. Lowest satisfaction levels were recorded for the teaching of English to low-achieving pupils (only 36% were satisfied in the case of First class teachers, and only 28% in the case of Fifth class teachers).

Table 10.11: Percentage of inspectors who were satisfied or dissatisfied with how teachers were meeting pupils' various learning needs

	1st class			5th class		
	N	Satisfied	Dissatisfied	N	Satisfied	Dissatisfied
Identifying pupils' learning difficulties	50	78.0	22.0	50	66.0	34.0
Identifying and addressing common grammar errors	49	73.5	26.5	50	74.0	26.0
Identifying and addressing common spelling errors	50	70.0	30.0	50	64.0	36.0
Teaching English to pupils whose first language is not English/Gaeilge	49	67.3	32.7	49	57.1	42.9
Addressing needs of pupils with learning difficulties in English	50	54.0	46.0	50	44.0	56.0
Teaching English to pupils with high ability in English	49	53.1	46.9	49	57.1	42.9
Teaching English to pupils with very low achievement	50	36.0	64.0	50	28.0	72.0

Planning and Pupil Assessment

Inspectors were asked a number of questions relating to their satisfaction with aspects of teachers' planning, the assessment of pupils, and the use of the outcomes of assessments. In the case of First class English, 80% of inspectors were satisfied with the quality of teachers' planning using short-term schemes, while 76% were satisfied with the quality of planning in the context of long-term schemes (Table 10.12). In relation to Fifth class, the figure was 78% (for both short- and long-term schemes).

Table 10.12: Percentage of inspectors indicating if they were satisfied with teachers' short- and long-term planning

	1st class			5th class		
	N	Satisfied	Dissatisfied	N	Satisfied	Dissatisfied
Quality of short-term schemes	50	80.0	20.0	50	78.0	22.0
Quality of long-term schemes	50	76.0	24.0	50	78.0	22.0

Inspectors were asked a number of specific questions about pupil assessment and feedback, and to indicate how well they believed First and Fifth class teachers carried out each activity. In general, satisfaction was greater with First class than with Fifth class teachers (Table 10.13). On all except two of the 15 activities listed (administration of standardised tests and the use of structured observations), the proportion of inspectors who were satisfied with the activities of First class teachers exceeded the proportion satisfied with the activities of Fifth class teachers.

Table 10.13: Percentage of inspectors who were satisfied or dissatisfied with how well First and Fifth class teachers performed various types of assessment activities

	1st class			5th class		
	N	Satisfied	Dissatisfied	N	Satisfied	Dissatisfied
Administration of standardised tests of English reading	49	93.9	6.1	50	94.0	6.0
Amount of homework assigned	48	91.6	8.4	48	79.2	20.8
Feedback given during classwork	49	85.7	14.3	50	82.0	18.0
Feedback given to pupils reading aloud	49	85.7	14.3	49	79.6	20.4
Teacher-made tests	49	75.5	24.5	49	67.3	32.7
Progress tests or checklists accompanying reading schemes	50	72.0	26.0	50	54.0	46.0
Administration of diagnostic tests of English reading	50	58.0	42.0	49	53.0	47.0
Feedback given to pupils on work completed independently during class	49	57.1	42.9	50	52.0	48.0
Feedback given to pupils on homework	47	51.1	48.9	46	45.7	54.3
Use of informal assessment procedures	49	49.0	51.0	50	34.0	66.0
Teacher-made checklists	49	49.0	51.0	50	40.0	60.0
Interpretation of results of standardised tests of English reading	49	44.9	55.1	50	42.0	58.0
Interpretation of results of diagnostic tests of English reading	50	40.0	60.0	49	36.7	63.3
Use of structured observations	48	27.1	72.9	49	28.6	71.4
Use & interpretation of curric. profiles	50	20.0	80.0	50	18.0	82.0

In the case of both First and Fifth class, almost all inspectors were satisfied with the administration of standardised tests of English reading (although less than half were satisfied with the interpretation of such test results), while at least 80% were satisfied with the feedback given to pupils during classwork and when reading aloud. Ninety-two percent were satisfied with the amount of homework assigned to First class pupils, but only 79% were satisfied with the amount assigned to Fifth class pupils. However, it is not possible to conclude whether those dissatisfied believed that too much or too little homework was assigned. Between half and three-quarters were satisfied with the following assessment

practices of teachers at each grade level: use of teacher-made tests; use of progress tests accompanying reading schemes; administration of diagnostic tests; and feedback given to pupils on work completed independently during class.

Slightly less than half of respondents were satisfied with First and Fifth class teachers' practices in the following areas: use of informal assessment procedures; use of teacher-made checklists; and, interpreting the results of diagnostic tests. Inspector satisfaction was lowest for teachers' use of structured observations and for use and interpretation of curriculum profiles.

Gender Differences in Reading Achievement

Well over half (60.8%) of inspectors who completed the questionnaire indicated that they had observed gender differences in pupils' reading achievement. Those who indicated that they had observed such differences were invited to describe the nature of the differences observed. The most common type of difference observed (54.8% of those who had observed differences) was that girls tended to be better readers than boys. Half of those who felt that girls were better readers attributed (in part at least) the gender difference to girls engaging more frequently than boys in leisure or independent reading. Another common factor, mentioned by 35% of those who observed that girls tended to be better readers, was a gender difference in the types of materials read. Boys were perceived to enjoy factual material more than fiction, whereas girls were perceived to enjoy both fictional and factual material. Two inspectors also commented that boys had a far more restricted range of topics in which they showed interest (e.g., some only read about sport), while a further two suggested that class libraries could better take account of boys' interests.

Nineteen percent of those who commented on gender differences noted an elevated level of learning difficulties or reading difficulties among boys. Some other general comments were made, including the perceived negative effects of single-sex schools on boys' reading achievement, the feminisation of the teaching profession, and a perception that teacher expectations are lower for boys than for girls (in relation to reading).

Those who had noted a gender difference were asked if they had any recommendations to address it. Most provided recommendations, as did three of those who indicated that they had not observed differences. Seven of the 27 inspectors who offered suggestions discussed issues related to the types of materials available to pupils. Most of these thought that materials that better related to pupil interest (in particular, to boys' interests) would be helpful, and felt that school and class libraries needed a wider range of materials and genres. Two suggested that boys should have a greater role in choosing library books (with one pointing out that most teachers were female, and would have different interests to their male pupils). Two inspectors felt that poor quality or small class libraries was a particular problem in all-boys schools, while one inspector felt that, rather than restricting boys' reading to a narrow range of interests, efforts should be made to expand their range of interests. An equally common suggestion (26% of those who offered suggestions) was to increase parental involvement in reading activities. Specific suggestions included encouraging parents to read regularly, bringing their child (particularly their male child) to the library, paired or shared reading, discussing reading materials with their child, and increasing the number of fathers who read with their child.

A further 26% made suggestions related to teaching methods or school approaches to the teaching of reading. Suggestions included the use of a variety of teaching methods (matching method to pupil, rather than using a single approach with all pupils), and increasing writing opportunities for boys, using a variety of genres but incorporating their particular interests. Others believed that mixed-ability groups helped to stimulate effort amongst both genders, that activity-based work helped boys' reading skills, or that consistent use, on a whole-school basis, of specific strategies for teaching reading, accompanied by consideration of the outcomes of regular assessment, was required. Other suggestions included earlier targeting of boys with reading difficulties, greater awareness of gender differences and greater efforts to counter such differences, more books by male authors, greater teacher mobility within schools, more visits from inspectors, and special recognition for boys who show significant improvement in reading.

General Comments on the Teaching of English

At the end of the Inspector Questionnaire, respondents were invited to make any additional comments or observations they wished about the teaching of English. Forty-three percent of those surveyed supplied at least one comment or observation. The most common observations related to the curriculum or to teaching oral language.

Seven inspectors (32% of those who made comments) raised issues relating to oral language. One felt that the most recent curriculum had led to more effective oral language lessons, while the remaining six had largely negative views on how oral language was taught. Some made general statements that the teaching of oral language was poor, or that oral language did not have a role in every lesson. More specific complaints included a lack of structure in oral language lessons ('unstructured and mere chit chat'), and teachers' lack of awareness that their personal classroom vocabulary could help raise pupils' literacy levels. One inspector noted that oral language difficulties in designated disadvantaged schools were a serious problem, and that parents' roles in facilitating language development had been neglected by teachers. Another felt that oral language lessons needed to be planned at each grade level, using clear strategies and targets.

Six inspectors raised issues relating to the curriculum. One noted that teachers were generally enthusiastic about the 1999 curriculum, while another felt that it had led to pupils being exposed to a wider variety of texts. Four were concerned that teachers did not understand or seemed unable to implement the curriculum. One felt that teachers were confused by the organisation of the curriculum into strands and strand units, and a lack of clarity in objectives. Consequently, newly qualified teachers generally gave English lessons that were unstructured. Another thought that the four strands were often dealt with separately by teachers, rather than in the context of one theme. Two cited a lack of clarity about teaching reading in Infants classes and in First class. One indicated that teachers gave pupils 'formal' books too early, while another felt that some teachers equated the lack of a structured scheme in Junior Infants with little explicit teaching of reading.

Issues relating to planning were raised by three inspectors. One felt that schools needed a greater concentration on methodology in their planning processes. For example, while all were in favour of promoting oral language skills, not all were clear on the best techniques for doing this. Another thought that more attention to individual teacher planning, and better implementation of the school plan was needed. Another criticised the lack of developmental planning and the poor transfer of test results from class to class.

Other general comments and suggestions included reference to an improvement in pupils' phonological awareness in recent years, and to a restricted range of reading materials for pupils, as well as the hope that the availability of additional resources would be reflected in improved standards. One felt that teachers needed to differentiate the curriculum so as to better meet their pupils' needs, while another felt that the overuse of workbooks impinged on teaching time. Suggestions included more attention to the teaching of spelling and comprehension, more support for parents to help them develop their children's literacy skills, and more emphasis on the process approach to writing.

Summary

The 51 inspectors who returned completed questionnaires had considerable experience, having conducted a total of almost 3,000 English lesson observations at First and Fifth class in the two years prior to the survey. Inspectors perceived a number of strategies to be effective for teaching English, including class discussion of a story, and teaching pupils to use comprehension strategies. However, three-quarters thought that daily use of workbooks and worksheets was an ineffective strategy. Most were satisfied that teachers had adequate access to computers, software, texts, and library materials, but fewer were satisfied with how these resources were used. Greatest dissatisfaction was expressed for the use of computers and software for teaching English. Well over half were dissatisfied with the co-ordination of the work of class and learning-support teachers, the integration of class and learning-support programmes, and the involvement of parents in learning-support programmes.

Inspectors perceived teachers to have numerous pre-service and ICD needs, particularly in learning how to develop pupils' oral language, and how to teach pupils the purposes and forms of writing. More than half of the inspectors believed that teachers had a somewhat or very limited knowledge of methods of teaching English. Further, while most were satisfied with how well teachers identified learning difficulties and addressed common grammar and spelling errors, only 28% were satisfied with how Fifth class teachers taught English to pupils with very low achievement. Inspector satisfaction was high for the administration of standardised tests, homework, and feedback during class, but lower for the interpretation of the results of standardised tests, and lowest for the use of structured observations and the use and interpretation of curriculum profiles.

Sixty percent of those surveyed observed gender differences in reading achievement (generally attributed to girls reading more frequently than boys, or to having a broader range of topics and genres in which they showed an interest). Some suggested that the differences could be reduced by providing a range of texts more suitable to boys' interests. Others felt that increased parental involvement (particularly by fathers) in reading activities might help to improve boys' reading achievement. General observations about the teaching of English included the perceptions that the teaching of oral language was poor, that some teachers had difficulty understanding the organisation of the curriculum, and that planning (at school- and pupil-level) needed improvement.

11. Comparing the 1998 and 2004 Surveys

As outlined in chapter 4, there are no significant differences in the mean reading achievement scores obtained by Fifth class pupils in the present and in the 1998 assessment (although pupils at the 50th, 75th, and 90th percentiles on the documents subscale scored significantly higher in 2004 than in 1998). In this chapter, we examine some variables at the school and pupil levels with a view to (i) identifying changes, if any, in resources, demographics, etc. between 1998 and 2004; and (ii) comparing the associations of some of these variables with achievement in 1998 and 2004. Since First class pupils were assessed for the first time in 2004, the comparisons are confined to Fifth class. To compare achievement in 1998 and 2004, both the 1998 and 2004 achievement data were re-scaled. The scales used in this chapter differ slightly from the achievement scores described in Chapters 5-8, and also from the results published in the 1998 report (see 'Scaling of Test Data' in Chapter 3 for more detail on scaling methods). In 1998, a Teacher Questionnaire was not administered; therefore the final section in this chapter provides some broad comparisons of responses to the Teacher Questionnaire in 2004 with unpublished data from NAER 1993 and with a previous international assessment of reading, carried out in 1991 (the IEA Literacy Study; Martin & Morgan, 1994).

Where percentages are compared (e.g., the percentage attendance of pupils in designated disadvantaged and non-designated schools), their 95% confidence intervals (explained in Chapter 3) were used to determine the significance of differences. The standard errors for all means and percentages reported in this chapter may be found in the e-appendix (available on http://www.erc.ie/naer04/e-appendix). Overall, however, the analyses reported are for broad comparative, descriptive rather than inferential purposes.

School-Level Characteristics

This section examines school characteristics, including demographic characteristics, availability of resources, and use of standardised tests.

Demographic Characteristics of Schools

Tables 11.1 and 11.2 show some selected demographic characteristics of the schools that participated in the 1998 and 2004 assessments. There are no significant differences between the 1998 and 2004 sample in terms of location, with just over one-third of pupils in each sample enrolled in schools in large cities, and a further one-third enrolled in schools in rural areas. The proportion of pupils attending schools with Parents' Associations has increased by approximately 9% since 1998, but the increase is not statistically significant. Similarly, while there were slight increases in the percentages of pupils in designated disadvantaged schools or covered by the School Books for Needy Pupils Scheme ('books grant'), the differences are not significant. However, there has been a slight (but significant) decrease in average school enrolment, from 267 pupils in 1998 to 249 pupils in 2004. Further, the 2% improvement in quarterly attendance rates (from 91% to 93%) since 1998 is significant, and remains significant when designated disadvantaged and non-designated schools are considered separately.

Table 11.1: Comparison of 1998 and 2004 school samples: location, designated disadvantaged status, and Parents' Association

	1998	2004	Sig. change since 98?
Location			
- large city	36.8	36.9	–
- large town	9.7	15.2	–
- small town	17.1	11.7	–
- rural	36.4	36.2	–
Designated Disadvantaged (DD)	13.9	14.8	–
Parents' Association	73.3	82.4	–

Table 11.2: Comparison of 1998 and 2004 school samples: enrolment, percentage on books grant, and quarterly attendance

	1998	2004	Sig. change since 98?
Mean school enrolment	267.4	248.6	↓
% books grant	26.8	29.8	–
Quarterly attendance rate	91.2	93.2	↑
Quarterly attendance rate: - DD schools	88.2	90.9	↑
Quarterly attendance rate: - non-DD schools	91.7	93.6	↑

In both 1998 and 2004, pupils in designated schools have significantly lower mean achievement scores than pupils in non-designated schools, with the magnitude of the difference slightly greater in 2004 than in 1998 (38 versus 33 points, respectively) (Table 11.3). Also, amongst pupils in designated schools, the mean score obtained in 2004 is marginally, but not significantly, lower than that obtained in 1998. The mean scores obtained in 1998 and 2004 by pupils in non-designated schools do not differ significantly.

Table 11.3: Schools' disadvantaged status and pupil achievement, 1998 and 2004

	1998 (N=3851)			2004 (N=4090)		
	%	Mean	SE	%	Mean	SE
Non DD (RefGroup)	86.1	254.5	1.74	85.3	256.8	1.80
DD	13.9	**221.3**	4.42	14.7	**218.8**	6.78

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Resources in Schools

In 2004, the school-level pupil-teacher ratio was 19.1:1, significantly lower than the ratio of 26.8:1 found in 1998[1]. There has also been an increase in special education posts, but comparisons are hampered by changes in the structure of the special education support services. In 2004, principals were asked about both learning-support and resource teaching staff, whereas in 1998, they were asked about remedial teachers only. In 1998, there was an average of one remedial post per 377.7 pupils, compared to a (not significantly) lower ratio of one learning-support teacher per 342.1 pupils in 2004. However, the ratio of resource teaching posts to pupils in 2004 was 211.7, and the ratio of pupils to learning-support and resource teaching posts combined was 115.1 (Table 11.A1).

[1] The estimate for the 1998 assessment is disaggregated to the pupil level, and differs slightly to the ratio reported in Cosgrove et al (2000), which was not disaggregated.

There has been a small but statistically significant increase in the number of library books per pupil, from 8.1 to 11.7. There has also been a substantial, and statistically significant, decrease in the ratio of pupils to computers for pupil use, from 65.6:1 in 1998[2] to 14.1:1 in 2004 (Table 11.A2). Further, access to computers was universal in 2004, while in 1998, 16.1% of pupils were in schools which did not have computers for pupil use.

Use of Standardised Tests

Since 1998, there has been a significant increase in the administration of standardised tests in Third and Fourth classes (from 90.2% to 97.7% and 88.7% to 96.2%, respectively), but not to Fifth and Sixth classes (Table 11.A3). It is not possible to compare the frequency with which Junior classes were assessed in 1998 and 2004. The 1998 sample contained a number of Senior schools, which would need to be excluded from analyses of the percentages of schools administering tests at Junior grades. However, this cannot be done, as all data identifying schools were removed after NAER 98 was completed.

School-Level Characteristics and Pupil Achievement

Table 11.4 shows the associations between some continuous school-level variables and reading achievement in 1998 and 2004. All are in the weak or weak to moderate range. In both years, school average attendance has a weak positive relationship with achievement. The association with the percentage of pupils receiving the books grant is weak to moderate and negative, and statistically significant in both years. The school-level pupil-teacher ratio has a weak, positive association with achievement in both 1998 and 2004, indicating that more pupils per teacher is associated with higher achievement. However, this was complicated by the fact that the pupil-teacher ratio in designated disadvantaged schools is substantially lower than in non-designated schools (in 2004 the respective pupil-teacher ratios were 13.7:1 and 20.1:1; in 1998, they were 23.4:1 and 27.4:1). The ratio of pupils to learning-support teachers also has a weak positive significant correlation with pupil achievement in 1998, but in 2004, was not associated with achievement. The number of library books in the school is not significantly associated with achievement in 1998, while the correlation is weak and positive in 2004. The ratio of pupils to computers is not significant in either year.

Table 11.4: Correlations between all continuous school-level variables and pupil achievement, 1998 and 2004

	1998				2004			
	N	r	t	p	N	r	t	p
Attendance	3833	**.170**	6.049	<.001	3373	**.131**	2.261	.027
% on Books Scheme	3696	**-.253**	-8.052	<.001	3733	**-.232**	-3.327	.001
Pupil-Teacher Ratio	3968	**.203**	4.876	<.001	3968	**.179**	2.672	.009
Pupil-LST Ratio	3233	**.217**	6.254	<.001	3651	.042	0.887	.378
Book-Pupil Ratio	3830	-.063	-1.346	.182	3647	**.102**	2.032	.046
Pupil-Computer Ratio	3849	.052	1.814	.074	3827	.025	0.905	.368

Significant correlations in bold. For help in interpreting table see page 36.

[2] The pupil-computer ratio in 1998 applies only to schools where at least one computer was available. The pupil-computer ratio reported in the 1998 report is incorrect (Cosgrove et al., 1998, p. 89); the mean number of computers per school was 4.94, not 3.55.

Pupil Characteristics

This section outlines various pupil characteristics, as rated by teachers, and achievement. Pupils' engagement in homework and leisure activities, their attitudes to reading and their educational expectations are also described. Pupils cannot be compared on demographic characteristics such as membership of the Traveller community, language spoken at home, or country of birth, since this information was not collected in 1998.

Comparison data on pupil age are available, and indicate that the average age of participating pupils was almost identical in both surveys (11.4 years in 1998 and 11.5 years in 2004). Also, examining the mean overall scores of boys and girls in 2004, neither group differed significantly from the mean scores obtained in the 1998 survey (Table 11.A4). Further, mean scores at key percentile points for boys and girls in 2004 did not differ from corresponding scores in 2004 (Table 11.A4).

Teachers' Ratings of Pupil Characteristics

In this section, data from the Pupil Rating Form concerning pupil behaviour and various aspects of their reading skills are compared. Comparisons are made for the sample overall, and by gender.

Table 11.5 shows teacher ratings of pupil behaviour and the mean scores associated with each rating, for 1998 and 2004. In 2004, slightly (but not significantly) more teachers rated pupils' behaviour as 'very good' (55% compared to 49%). The percentage of pupils in 1998 whose behaviour was rated as 'fair' or 'poor' is somewhat higher than in 2004, but this is not significant either. The mean scores associated with each behaviour rating category are very similar across the two years, although the gap between the 'very good' and 'poor' categories is slightly higher in 1998 (72 points) than in 2004 (57 points). Analyses by gender (Tables 11.A5 and 11.A6) indicate that the overall increase in 'very good' ratings is associated with girls rather than boys; the percent of girls rated 'very good' differs significantly across the two years.

Table 11.5: Teacher ratings of pupils' behaviour, and pupil achievement, 1998 and 2004

	1998 (N=3834)			2004 (N=4072)		
	%	Mean	SE	%	Mean	SE
Very good (RefGroup)	48.5	271.0	2.03	54.9	261.5	2.23
Good	27.3	**245.2**	2.67	26.5	**247.6**	2.58
Average	14.2	**221.5**	3.04	11.3	**232.9**	4.89
Fair	6.2	**206.8**	3.62	4.9	**217.4**	6.59
Poor	3.7	**198.6**	5.86	2.0	**204.9**	5.17

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Table 11.6 shows the class level at which teachers placed pupils (based on reading skills) and the mean scores associated with each rating. In 1998, there is a mean score difference of about 120 points between pupils rated as 'post-primary' and those rated as 'Third class or lower'; this difference is around 130 points in 2004. In 2004, teachers were significantly less likely than in 1998 to rate pupils' reading standards as post-primary, and significantly more likely to rate pupils at Fifth class standard. The percentages of pupils described as being at a Third class standard or lower are similar in both 1998 and 2004.

However, some of the changes observed may be attributable to a change in the wording of the question – only in 2004 were teachers asked to rate pupils with reference to national standards.

Table 11.6: Teacher ratings of pupils' reading standards according to class level, and pupil achievement, 1998 and 2004

	1998 (N=3868)			2004 (N=4029)		
	%	Mean	SE	%	Mean	SE
Post-prim. (RefGroup)	14.5	303.3	2.15	6.1	316.1	3.34
6th class	18.9	**281.0**	1.87	16.8	**291.4**	4.19
5th class	40.4	**246.0**	2.04	49.7	**254.1**	1.85
4th class	17.0	**215.8**	2.76	18.8	**217.1**	2.58
3rd class / lower	9.2	**183.7**	2.48	8.6	**186.3**	3.69

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

There were no significant changes between 1998 and 2004 in teacher ratings of how pupils would cope with the reading tasks of post-primary school, or in the mean scores obtained by pupils in each rating category (Table 11.7). In both years, boys were more likely than girls to be expected to need assistance or not to cope (Tables 11.A7 and 11.A8).

Table 11.7: Teacher ratings of how pupils will cope with reading tasks of post-primary school, and pupil achievement, 1998 and 2004

	1998 (N=3868)			2004 (N=4054)		
	%	Mean	SE	%	Mean	SE
Cope very well (RefGroup)	41.3	285.2	1.94	42.4	283.8	2.14
Cope adequately	37.8	**240.3**	1.90	39.3	**240.5**	3.04
Needs assistance	17.9	**202.7**	1.97	15.9	**203.0**	3.64
Not cope	3.0	**169.6**	3.78	2.4	**174.2**	5.48

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Engagement in Homework

In both years, a large majority of pupils reported receiving English homework daily or nearly every day (Table 11.8). Very few pupils (4% in 1998 and 3% in 2004) reported being given homework less often than a couple of times a week. The mean achievements of pupils do not differ across these categories in 2004. In 1998, pupils reporting hardly ever or never receiving English homework had a significantly lower mean score than pupils in receipt of it on a daily or almost daily basis.

Table 11.8: Frequency of receiving English homework, and pupil achievement, 1998 and 2004

	1998 (N=3874)			2004 (N=3999)		
	%	Mean	SE	%	Mean	SE
Nearly every day/every day (RefGroup)	76.7	250.7	2.17	80.6	251.1	2.33
Once/twice a week	19.8	247.8	2.78	16.0	255.9	4.86
Few times/month	2.8	257.0	5.17	2.2	249.8	4.40
Hardly ever/never	0.7	**200.4**	13.32	1.1	230.9	14.60

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

There has been a significant increase since 1998 in the amount of time spent on homework (Table 11.9). In 1998, the modal amount of time was about 15 minutes; in 2004, it was about half an hour. In both years, the overall trend is the same: pupils spending more than one hour on homework tended to perform less well than pupils spending smaller amounts of time.

Table 11.9: Time spent on English homework, and pupil achievement, 1998 and 2004

	1998 (N=3860)			2004 (N=3985)		
	%	Mean	SE	%	Mean	SE
Five minutes or less	10.6	**255.4**	4.65	4.1	246.5	8.54
About fifteen minutes	55.7	254.9	2.18	41.4	258.5	2.83
About thirty minutes (RefGroup)	27.7	242.9	2.87	47.0	248.1	2.49
About an hour	5.1	234.3	4.88	6.6	233.7	6.33
More than an hour	0.9	**198.2**	9.79	0.9	**227.8**	7.15

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Attitudes to Reading and School

The percentages of pupils endorsing various responses to the statement 'I like reading' do not differ significantly across the two years, with a large majority either agreeing or strongly agreeing with the statement (Table 11.10). In contrast, there has been a significant decrease in the percentage of pupils strongly agreeing with the statement 'It is important for me to do well at reading' (Table 11.11). However, while there is a clear association between liking reading and pupil achievement (in both years), this is not the case for the perceived importance of doing well at reading. In both years, just over twice as many boys as girls disagreed or strongly disagreed that they liked reading (Tables 11.A9 and 11.A10), but there are no discernible gender differences in attitudes to the importance of reading (Tables 11.A11 and 11.A12).

In both 1998 and 2004, approximately 60% of pupils indicated that they liked school (Table 11.12), and slightly more girls than boys indicated they liked school or liked it a lot (Tables 11.A13 and 11.A14). In both years, pupils indicating that they disliked school a lot had the lowest mean scores.

Table 11.10: Agreement with the item 'I like reading', and pupil achievement, 1998 and 2004

	1998 (N=3872)			2004 (N=4000)		
	%	Mean	SE	%	Mean	SE
Strongly agree (RefGroup)	36.9	266.8	2.63	38.9	270.9	2.76
Agree	41.8	**246.1**	2.01	40.3	**244.3**	2.37
Not sure	15.6	**229.5**	3.42	13.1	**229.1**	3.79
Disagree	2.7	**234.9**	4.71	5.4	**236.8**	9.91
Strongly disagree	3.0	**221.3**	6.07	2.3	**215.1**	4.47

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Table 11.11: Agreement with the item 'It is important for me to do well at reading', and pupil achievement, 1998 and 2004

	1998 (N=3868)			2004 (N=4000)		
	%	Mean	SE	%	Mean	SE
Strongly agree (RefGroup)	60.3	252.2	2.14	44.4	251.9	2.37
Agree	31.6	246.9	2.58	35.1	247.7	2.88
Not sure	6.1	252.3	3.81	14.5	262.8	4.20
Disagree	1.1	234.2	16.52	3.5	262.4	5.12
Strongly disagree	1.0	229.9	9.00	2.5	**221.6**	4.63

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Table 11.12: Agreement with the item 'How much do you like school?', and pupil achievement, 1998 and 2004

	1998 (N=3865)			2004 (N=3986)		
	%	Mean	SE	%	Mean	SE
Like a lot (RefGroup)	10.2	248.1	3.73	11.3	252.0	6.03
Like	49.6	257.8	2.27	50.6	257.8	2.03
Dislike	20.5	249.4	3.18	21.6	255.0	3.32
Dislike a lot	19.7	**232.5**	3.58	16.5	**226.8**	4.21

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Leisure Activities

There has been a significant decrease in the percentage of pupils spending three to five hours, and five or more hours, watching TV, videos, or DVDs on school days (Table 11.13). In both years, there is no gender difference in the pattern of responses (Tables 11.A15 and 11.A16) and the relationship between viewing and achievement is weak, although the lowest mean scores are associated with very heavy viewing habits (five or more hours per school day). In contrast, there has been a significant increase in the percentage of pupils playing computer games, but no real change in the percentage of heavy users (Table 11.14). The achievement differences are also comparable across the two years, with lowest mean scores observed for pupils reporting five or more hours of use on a school day. In both years, the vast majority of the heavy computer users are boys (Tables 11.A17 and 11.A18).

Table 11.13: Time spent watching TV/videos/DVDs on school days, and pupil achievement, 1998 and 2004

	1998 (N=3852)			2004 (N=4010)		
	%	Mean	SE	%	Mean	SE
More than 5 hours	6.8	**227.2**	4.36	4.0	**216.3**	4.62
3 to 5 hours	12.3	249.6	3.55	8.2	245.5	4.40
2 to 3 hours	22.3	**256.3**	2.56	21.4	255.6	2.97
1 to 2 hours	29.0	**257.2**	2.81	30.9	255.1	2.86
Up to 1 hour (RefGroup)	24.6	244.8	3.19	29.8	252.9	3.51
None	4.9	238.6	6.44	5.7	243.0	6.84

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Table 11.14: Time spent playing computer games on school days, and pupil achievement, 1998 and 2004

	1998 (N=3865)			2004 (N=4014)		
	%	Mean	SE	%	Mean	SE
More than 5 hours	2.2	**211.7**	5.54	1.7	**214.1**	4.99
3 to 5 hours	2.3	**229.2**	7.33	3.1	**228.8**	6.69
2 to 3 hours	3.9	239.8	5.01	8.5	233.5	7.17
1 to 2 hours	10.0	241.0	3.41	17.1	249.2	3.56
Up to 1 hour (RefGroup)	36.3	250.4	1.97	37.5	253.3	3.65
None	45.3	255.2	2.64	32.1	259.7	1.86

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Educational Expectations

There has been a slight, but not significant, increase in the percentage of pupils expecting to go to college or university (Table 11.15). There is a mean score difference of about 75 points between pupils who expect to finish primary school compared to those expecting to go to college or university in 1998; in 2004, this difference was about 65 points.

Table 11.15: Expectations for school attainment, and pupil achievement, 1998 and 2004

	1998 (N=3872)			2004 (N=3981)		
	%	Mean	SE	%	Mean	SE
Go to College/University (RefGroup)	50.9	264.8	2.40	54.2	261.9	2.73
Do Leaving Cert	24.1	**233.3**	2.36	20.5	**238.0**	2.70
Do Junior Cert	3.1	**212.2**	7.75	2.3	**214.9**	5.15
Finish primary school	1.0	**190.0**	15.45	0.9	**197.0**	6.00
Don't know	20.9	**242.0**	3.12	22.1	**244.7**	3.91

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Home Environment

This section compares some of the demographic characteristics relating to pupils' home backgrounds. Parental employment status, medical card status, and family structure are compared for the two years. Comparisons are also made for home educational resources, books in the home, parents' rules about watching TV/videos/DVDs, and parents' expectations for their children's education.

The percentage of pupils with no parent in full- or part-time paid employment outside the home decreased significantly between 1998 and 2004 (from 18% to 8%), and is coupled with a significant increase in the percentage of pupils with parents reporting both parents in paid employment (from 39% to 52%) (Table 11.16). In both years, pupils with no parent working outside the home had the lowest mean scores, while the difference in mean scores between pupils with one and two parents in paid employment is significant only in 1998. Since 1998, the percentage of pupils covered by the medical card has fallen slightly, but not significantly (Table 11.17), while the percentage of pupils living in lone-parent households has increased significantly (Table 11.18). In both years, pupils covered by the medical card or living in a lone-parent household achieved lower mean scores. While the difference associated with the medical card fell from 36 points in 1998 to 26 points in 2004, the difference associated with lone-parent status remained the same at around 20 points.

Table 11.16: Parental employment status, and pupil achievement, 1998 and 2004

	1998 (N=3835)			2004 (N=4039)		
	%	Mean	SE	%	Mean	SE
No parent employed	18.4	**221.9**	2.95	7.5	**226.9**	6.45
One parent employed	42.9	**252.2**	2.36	40.0	250.8	3.83
Two parents employed (RefGroup)	38.7	261.8	1.96	52.4	255.8	2.01

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Table 11.17: Parental medical card status, and pupil achievement, 1998 and 2004

	1998 (N=3764)			2004 (N=3865)		
	%	Mean	SE	%	Mean	SE
Yes	29.4	**224.8**	3.16	23.5	**232.7**	4.33
No (RefGroup)	70.6	261.1	1.68	76.5	259.3	2.17

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

Table 11.18: Lone-parent status, and pupil achievement, 1998 and 2004

	1998 (N=3802)			2004 (N=3906)		
	%	Mean	SE	%	Mean	SE
Dual parent (RefGroup)	87.9	253.1	1.94	82.7	256.1	2.19
Lone parent	12.1	**231.2**	2.86	17.3	**236.9**	3.23

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

In both 1998 and 2004, the percentages of pupils that had home access to either an encyclopaedia (approximately 60%) or a dictionary[3] (over 90%) are similar (Table 11.19). However, the percentage with a quiet place to study has doubled, from 36% to 71%. Mean score differences are comparable across the years for all three educational resources.

Table 11.19: Home educational resources, and pupil achievement, 1998 and 2004

	1998 (N=3835)			2004 (N=3951)		
	%	Mean	SE	%	Mean	SE
Encyclopaedia						
No	39.1	**233.8**	2.54	42.3	**233.8**	2.69
Yes (RefGroup)	60.9	261.0	1.99	57.7	266.0	1.82
Dictionary						
No	6.2	**203.4**	3.35	7.7	**212.7**	3.74
Yes (RefGroup)	93.8	253.5	1.72	92.3	255.7	2.16
Quiet place to study						
No	63.6	**240.3**	2.01	25.3	**227.6**	3.06
Yes (RefGroup)	36.4	267.9	2.18	71.3	261.2	1.73

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

[3] In 1998, a distinction was made between a family dictionary and the child's own dictionary; in 2004 this distinction was not made.

Table 11.20 shows the percentages of pupils with varying numbers of books in the home. The category of 'more than 100' books was expanded in 2004 to three categories (101-250; 251-500; 500+); similarly the category of 'less than 11' books was expanded in 2004 (none; 1-10). These have been collapsed to allow comparisons. In both years, about 11% of pupils lived in homes with ten or fewer books. There is a slight increase in the percentage of pupils in homes with more than 100 books (from 32% to 40%), but this is not significant. The mean score difference between pupils in homes with the highest and lowest numbers of books was about 67 points in 1998; in 2004 it was smaller (58 points).

Table 11.20: Number of books in the home, and pupil achievement, 1998 and 2004

	1998 (N=3796)			2004 (N=3921)		
	%	Mean	SE	%	Mean	SE
Less than 11	10.7	**209.1**	3.67	11.1	**215.5**	3.91
Between 11 and 50	34.5	**234.1**	2.23	24.6	**236.7**	2.75
Between 51 and 100	22.4	**259.9**	2.29	24.0	**250.9**	3.65
More than 100 (RefGroup)	32.4	276.1	2.61	40.3	273.3	3.59

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

In both years, parents were asked if they or any other family member were members of a public library (Table 11.A19). The percentages answering 'yes' are not significantly different (76% in 1998 and 80% in 2004); the mean score differences between pupils whose families were members of a public library and pupils whose families were not (around 30 scale points in both years) are also similar.

Table 11.21 compares mean scores of pupils whose parents reported having rules about the type of TV/videos/DVDs that their children are permitted to watch, with the mean scores of pupils whose parents did not impose restrictions, as well as the amount of viewing allowed. Although there has been a slight decrease in the percentage of parents indicating that they make rules about the types and amounts of viewing, this is not significant. The mean score differences for both types of rules, and for both years, are significant and similar in magnitude, in the region of 15 to 20 points.

Table 11.21: Rules about TV/video/DVD viewing, and pupil achievement, 1998 and 2004

	1998 (N=3835)			2004 (N=3951)		
	%	Mean	SE	%	Mean	SE
Type						
No	40.9	**241.3**	2.24	45.1	**241.9**	2.63
Yes (RefGroup)	59.1	256.6	2.25	54.9	261.0	2.29
Amount						
No	24.2	**235.1**	3.61	35.6	**240.3**	2.81
Yes (RefGroup)	75.8	255.2	1.84	64.4	259.1	2.20

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

There has been a significant increase (of 7%) since 1998 in the percentage of pupils whose parents expect them to complete a third-level degree course (Table 11.22). The mean score difference between pupils whose parents expect them to attain the Junior Certificate and those whose parents expect them to attain a degree is substantial in both years, although smaller in 2004 (82 points in 1998 and 64 points in 2004).

Table 11.22: Parents' expectations for their child's educational attainment, and pupil achievement, 1998 and 2004

	1998 (N=3763)			2004 (N=3812)		
	%	Mean	SE	%	Mean	SE
Before Junior Certificate	–	–	–	0.4	**216.4**	14.70
Junior Certificate	2.2	**190.8**	7.05	1.4	**206.2**	5.46
Leaving Certificate	21.8	**215.6**	3.76	19.9	**218.2**	3.98
PLC/Certificate/Diploma	23.6	**241.1**	1.49	19.3	**241.9**	3.41
Third-level degree (RefGroup)	52.5	273.3	1.80	59.0	270.0	1.71

Bold denotes mean significantly different from the reference group. For help in interpreting table see page 37.

The 1998 version of the question did not distinguish between educational attainment before and after the Junior Certificate.

Instructional Activities

The 1998 survey did not include a Teacher Questionnaire. Thus, information from NAER 1993, and from a survey of reading literacy of 9- and 14-year-olds carried out in 32 countries in 1991 (Martin & Morgan, 1994), is compared with data from 2004. These surveys are referred to as the 1993 survey and the 1991 survey, respectively. It should be noted that standard errors are unavailable for the 1991 and 1993 studies, that item wording and response categories differ, and that the 1991 survey was a survey of Third class rather than of Fifth class pupils. Further, intact class sampling was used in 1991 and 2004, but not in 1993. Finally, the 1991 and 1993 studies used teachers as the unit of analysis, whereas in the present study pupils are the unit of analysis. Consequently, it is not possible to do more than make some broad comparisons about instructional activities across the three surveys.

As shown in Table 11.23, some instructional activities were widespread in each of the three surveys. Thus, a minimum of 70% of teachers reported that their pupils engaged in each of the following on a regular basis: silent reading, use of workbooks/worksheets, writing in response to reading, and listening to the teacher read aloud to the class. However, pupils regularly read other pupils' writing in only approximately one-quarter of classrooms. Comparing the three studies, there is a decrease (from 87% to 73%) in the percentage of teachers who regularly engage pupils in writing in response to reading, accompanied by a slight increase (from 74% to 81%) in the percentage of classrooms where there is regular use of workbooks.

Table 11.23 also shows the percentages of pupils engaging in various types of skills development. Based on teacher reports, there seems to be a general increase in regular pupil engagement in each of the five activities listed. The regular development of reference skills increased from 60% to 68% between 1993 and 2004 (or from 32% to 68% since 1991, if 'learning library skills' is considered as equivalent to learning reference skills). The regular use and interpretation of diagrammatic texts has also increased since 1993 (from 7% to 39%). The frequency of three activities that are related to the development of comprehension skills/strategies (looking for the theme of a story, checking own understanding of the text, and orally summarising the story) have also increased in frequency. The frequency with which pupils study the style or structure of a text has not changed substantially since 1993, but has increased between 1991 and 2004 (from 16% to 28%).

Table 11.23: Comparison of instructional activities, 1991, 1993 and 2004

Wording 1991	Wording 1993	Wording 2004	% 1991 (Once or twice a week/Every day)	% 1993 (Most days/ Weekly)	% 2004 (Frequently)
Activities					
Silent reading in class	Silent reading	Silent reading	87.7	90	88.5
Listening to teacher read stories aloud	Listening to teacher read narrative text	Reading aloud while a group or the whole class listens	72.6	77	70.1
Reading other pupils' writing	Reading other pupils' writing	Reading other pupils' writing	23.4	12	26.6
Writing in response to reading	–	Writing in response to reading	87.1	–	72.6
–	Using workbooks or worksheets	Completing workbook exercises related to textbook reading	–	74	80.8
Skills Development					
Learning library skills	Developing reference skills	Learning reference skills	31.6	60	67.7
–	Learning to use illustrations (e.g., graphs, diagrams, tables) to understand text	Interpreting diagrammatic texts	–	7	38.8
Ask children to describe their strategy for understanding	–	Check their own understanding of text	31.4	–	92.7
Looking for the theme or message	Identify the theme of a story	Looking for the theme or message	59.7	54	93.9
Orally summarising their reading	Summarise orally	Orally retelling their reading	56.4	32	71.1
Studying the style or structure of the text	Study style/structure	Studying the structure of the text	15.8	25	27.9

In 1993, percentages were rounded to whole nunbers. 1991 scale = Almost never/Once a month/Once or twice a week/Every day; 1993 scale = Frequently/Sometimes/Rarely; 2004 scale = Most days/Weekly/Monthly/Less Frequently. Data for 2004 taken from Chapter 7, Tables 7.11, 7.13, 7.14, and 7.17.

Summary

This chapter examined some variables in 1998 and 2004 and, in some cases, their associations with achievement, to identify if there have been changes in the characteristics of the population of schools and pupils, and/or changes in the associations of these variables with pupil achievement.

The 1998 and 2004 samples are similar in terms of school location, school sex composition, the percentage of pupils attending designated disadvantaged schools, in receipt of the books grant, and covered by a medical card. Participating pupils are also similar in age. There has been a small but significant increase in average pupil attendance and a small but significant decrease in school enrolment. The school-level pupil-teacher ratio and the ratio of pupils to special educational needs staff have improved significantly since 1998, as have the ratios of pupils to library books and to computers.

There has been a significant increase in Third and Fourth classes in the incidence of standardised testing, but no change in Fifth and Sixth classes. There has also been a significant increase in the amount of time pupils spend on English homework. In both years, teacher ratings of pupils' current and future reading achievement were strongly related to assessed reading achievement, and boys were more likely than girls to be rated as having a low reading standard.

Attitudes to reading remain very similar in both years, and boys were about twice as likely as girls to express negative attitudes. The percentage of pupils who spent three or more hours a day watching TV on schooldays has decreased since 1998, but there has been no increase in heavy use (at least three hours a day) of computer games, despite a significant increase in the percentage of pupils who play computer games. In both years, the detrimental effects of playing computer games and watching TV are evident only at the highest levels of use (most heavy users of computer games were boys, with no gender differences in TV viewing).

There has been a significant decrease in the percentage of pupils with no parent employed, and an increase in the percentage with both parents employed. The percentage of pupils in lone-parent households has increased significantly. Access to home educational materials (such as books or an encyclopaedia) is similar in both years, although the percentage reporting a quiet place to study has doubled since 1998. There has been a significant increase in the percentage of pupils whose parents expect them to obtain a third-level degree.

Broad comparisons were made between some instructional practices in 2004 with data from NAER 1993 and from an international assessment of 9-year-olds carried out in 1991. There appears to have been an increase in the use of workbooks, and a small increase in the frequency with which pupils engage in the development of their reference skills. The regular use and interpretation of diagrammatic text also appear to have increased. The frequency of development of comprehension skills/strategies has increased notably.

12. Conclusions and Recommendations

The 2004 National Assessment of English Reading (NAER) in Irish primary schools is the most recent in a series of national assessments conducted at regular intervals since 1972. It examined the achievement of samples of pupils in First and Fifth class. Data on Fifth class pupils are available from assessments dating back to 1980, while data on First class pupils were collected for the first time in 2004. As the current assessment of Fifth class pupils used a test instrument similar to that used in 1993 and 1998, comparisons at this grade level are possible for 1993, 1998 and 2004 data.

At each grade level, close to 4000 pupils completed tests of reading achievement, while contextual data were obtained in questionnaires completed by pupils, parents, class and learning-support teachers, principals, and members of the Inspectorate. Response rates were high. Given this, and the sampling methods used, we can generalize from the results of the assessment to the equivalent populations nationally.

Main Findings

The results of the assessment indicate that the mean scores obtained by Fifth class pupils in the 1998 and 2004 assessments are almost identical. Further, scores on the three domains (narrative, expository, and documents) vary little across the two assessments, indicating that no change in 'national reading standards' had occurred since 1998. Indeed, based on linkages between this and earlier assessments, it can be inferred that overall standards have not changed since 1980. There w an improvement on the documents subscale in the performance of high-achieving pupils, but not enough to lift overall achievement.

There are some achievement differences of note, both within the 2004 sample, and between the 2004 and 1998 samples. As in 1998, girls achieved a significantly higher mean score than boys on the overall scale at Fifth class (there is a similar gender difference at First class in 2004, but no comparable data for 1998). However, in 1998, while girls outperformed boys in each of the three domains, in 2004, this was so only in the narrative and documents domains. Such gender differences are not unexpected, and are not unique to Ireland [see, for example, the results of Progress in International Reading Literacy Study (PIRLS), which found that girls had higher achievement than boys in all 35 participating countries (Mullis et al., 2003)].

There were a number of other expected findings in the present study. For example, lower pupil achievement was linked to a number of characteristics of pupils' homes, including medical card coverage, low socioeconomic status (SES), unemployment, and low parental educational attainment. Other factors associated with poorer average scores include being a member of the Traveller community, speaking a first language other than English or Gaeilge, living in a lone-parent household, or being part of a large family. However, factors related to achievement are not limited to family demographic and socioeconomic characteristics; home 'process' variables such as parents reading to their child, parents reading for enjoyment, the availability of resources such as books in the home, and parental rules for leisure activities (such as TV viewing) are all associated with

higher mean achievement scores. Some demographic changes are apparent between the 1998 and current assessments. For example, the percentage of Fifth class pupils without an employed parent dropped from 18% to 8%; there was a decrease of 6% in the percentage of pupils covered by the medical card; and the percentage living in lone-parent households increased by 5%. In contrast, there were no significant changes in home process variables, such as parent-child interactions related to literacy or educational resources in the home.

A small number of classroom and teacher characteristics were found to be significantly associated with achievement. There is evidence that pupils benefit from having a teacher who is experienced, who is employed in a permanent capacity, who has attended in-career development (ICD) on the English curriculum, and who frequently assesses pupils. Generally, the relationship between teacher characteristics and achievement is stronger at First than at Fifth class. One of the strongest correlations is between the number of days ICD related to the English curriculum attended by teachers and First class pupil achievement in designated disadvantaged schools. Overall, less than 3% of teachers were unqualified, but this percentage increases if only class teachers are considered, and increases further if only class teachers in designated disadvantaged schools are considered. In fact, 12% of First class pupils and 6% of Fifth class pupils in such schools were taught by an unqualified teacher.

Schools in the study represented a mix by location, language of instruction, designated status, size, and gender composition. All pupils (compared to 84% in 1998) were in schools in which computers were available for their use; the pupil-computer ratio was approximately 14:1, compared to 66:1 in 1998. Despite this, approximately one-third of pupils rarely or never used computers as part of English lessons. The overall (school-level) pupil-teacher ratio was 19:1, compared to almost 27:1 in 1998, and the number of learning-support posts had increased since 1998. The three factors most frequently selected by principals in 2004 as the main obstacles to teaching reading in their school were large classes, shortage of learning-support time, and inadequate psychological services. A number of school-level characteristics are significantly associated with pupil achievement, with a composite index of school-level SES showing by far the strongest relationship. Other school-level variables associated with higher achievement include good attendance rates, few pupils in receipt of learning support, and large pupil-teacher ratios. The last may in part be explained by the fact that disadvantaged schools tend to have smaller pupil-teacher ratios.

Learning-support teachers had an average caseload of 31 pupils, and just under half had completed a one-year part-time course in learning support. Most of their time was spent providing learning support in English, generally away from the pupils' classroom. Almost all believed that the Learning-Support Guidelines [Department of Education and Science (DES), 2000] were being implemented in their school, but only 73% agreed that learning support was meeting the needs of pupils in their school. Only slightly less than half felt that class teachers adequately differentiated their instruction for pupils in receipt of learning support. Related to this, approximately half of inspectors were dissatisfied with how teachers taught English to high ability pupils, and even more were dissatisfied with how English was taught to low ability pupils. Most inspectors were satisfied that teachers had adequate access to computers, software, texts, and library materials, but fewer were satisfied with how these resources were used. Greatest dissatisfaction was expressed with the use of computers and software for teaching English. More than half of the inspectors believed that teachers had a somewhat or very limited knowledge of methods of teaching

English, while well over one-third believed that teachers had a limited understanding of the English curriculum.

Commentary on Trends in Reading Standards

There may be some disappointment that average performance in reading among pupils in Fifth class did not show a significant overall improvement between 1998 and 2004, though higher-achieving pupils did better on comprehension of documents in 2004 than in 1998. Since the 1998 survey, a new curriculum has been introduced, schools have experienced significant improvements in resources, including increased numbers of learning-support and resource teachers, a reduced pupil-teacher ratio, increased library and Information and Communication Technology (ICT) resources, support for Whole School Planning, and the provision of in-career development in English. These improvements, coupled with improved economic conditions, might be expected to have contributed to higher reading standards.

The last major improvement in reading standards occurred between 1972 and 1980, following the introduction of the 1971 primary school curriculum. Two considerations should be made when noting that there has been no comparable improvement subsequent to the introduction of the 1999 curriculum. Firstly, Fifth class pupils who participated in NAER 2004 had not experienced the 1999 Primary School English Curriculum (PSEC) from Junior Infants. Indeed, they would have experienced some of the PSEC's 'teething problems' (including teacher difficulties with the oral language and writing components of the curriculum). Secondly, the improvement found in 1980 was from a low baseline (relative to England and Wales), making it easier to effect change than if standards were already high. Evidence from the Programme for International Student Assessment (PISA) study shows that Irish 15-year-olds attain high reading standards, relative to 15-year-olds in most participating countries. While there are obvious dangers in drawing conclusions about performance at primary level from an age-based sample of 15 year-olds, it can be observed that countries that performed about the same as Ireland in PISA 2003 (specifically Sweden and the Netherlands) were among the highest performing countries in the 2001 Progress in International Reading Literacy Study (PIRLS; Mullis, Martin, Gonzalez & Kennedy, 2003). Hence, it seems likely that overall standards at primary level in Ireland are reasonably high, making it more difficult to make gains than if we started from a lower base.

While resource levels have improved since 1998, there is evidence that pupils are not receiving the full benefit of this improvement. For example, despite a huge increase in the availability of ICT, few teachers use computers as a regular part of English lessons. Similarly, while there has been an increase in the availability of learning support, it remains disconnected from the classroom learning experiences of many pupils. The greatest concentration of additional resources has been in designated disadvantaged schools, in which reading standards are relatively low and have not improved since the 1998 assessment. It could be argued that because the many schemes designed to redress educational disadvantage operated somewhat independently of each other, their potential impact was reduced. It may be that the more coherent approach now proposed by DEIS (DES, 2005) will change this. However, since just 16% of pupils attend designated schools, their contribution to overall national standards is limited, meaning that strategies to improve overall reading performance will need to go beyond disadvantaged schools, and affect pupils in all schools.

One might also have expected improved economic conditions (including less unemployment) since 1998 to have impacted positively on pupils' reading achievements. However, this was not reflected in an increase in standards. This may be because few changes were found in home 'process' variables, such as educational resources in the home, library membership, and parental rules. Usually, home process variables are closely linked to SES (for example, pupils from high SES families tend to have access to a large number of books). However, our data indicate that improving economic conditions will not necessarily lead to improved pupil reading achievement; it is a literacy-rich (rather than an economically-rich) home that promotes reading development.

Since it is clear that no single initiative, activity, or change is likely to lead to a substantial increase in reading standards, we propose a series of recommendations designed to address a range of issues, and caution that improvement requires a co-ordinated and coherent approach.

Recommendations

In this section, we present 18 recommendations, organised under 10 topic headings. Within each topic area, a rationale precedes the recommendation(s).

Differentiation - Matching Instruction to Pupil Needs

Differentiation refers to the identification of a range of achievements and needs in a classroom, and the subsequent provision of instruction (teaching strategies, methods, and resources) matched to the achievement level and needs of each pupil. Teachers demonstrated clearly that they were able to identify a range of achievements in their classrooms. However, inspectors expressed dissatisfaction with the extent to which the second aspect of differentiation – provision of instruction matched to achievement – occurred. Close to half were dissatisfied with how class teachers taught pupils with high ability in English, while almost three-quarters were dissatisfied with how Fifth class teachers taught pupils with low ability. Similarly, less than half of learning-support teachers felt that class teachers adequately differentiated their instruction for pupils in receipt of learning support, while class teachers themselves expressed a need for more information on identifying and dealing with reading difficulties.

The recent Inspectorate review of curriculum implementation also raised issues relating to differentiation, suggesting that two-fifths of class teachers did not differentiate their teaching (DES, 2005a). In the present study, some evidence of insufficient differentiation comes from the teachers themselves. While most teachers assigned various levels of class reading materials to pupils, depending on reading ability, approximately 15% of pupils in Fifth class and 13% in First class (and proportionally more in multigrade classrooms) were in classes where all pupils at a given class level were assigned the same level of materials, irrespective of ability. Further, the 8% of First class pupils who spent less than five minutes a day on English homework obtained the highest achievement scores, suggesting that they are not being stretched academically by their homework.

Recommendation:

Teachers (particularly those teaching in multigrade classrooms) should incorporate greater differentiation of teaching practices and materials into their classrooms. Such differentiation should address the needs of both low- and high-achieving pupils.

Teaching Practices and Curriculum Implementation

The last major revision of the curriculum (in 1971) was followed by a significant improvement in reading standards in primary schools between 1972 and 1980. Such improvement is not evident for the 1999 curriculum, although it could be argued that 2004 was too early to judge its effects. Actual implementation of the English curriculum only began in earnest in 2001, and pupils in Fifth class in 2004 have not benefited from the current PSEC throughout their years in primary school. There was almost universal agreement among class teachers that in their school there was a positive attitude to the ideas in the PSEC. However, implementation is a little more complex, with up to 31% of principals reporting some difficulties in this area, and over one-third of inspectors indicating that class teachers had a somewhat or very limited understanding of the PSEC.

Our data suggest that, at First class, phonemic awareness, phonics and sight word knowledge, and aspects of the comprehension of narrative texts are well taught, but that comprehension of expository and representational texts, and discussion of different text genres do not receive adequate attention. Teachers may be adhering to the limited range of skills supplied as examples in the PSEC for this level, whereas it would be appropriate if a broader range of skills were taught, particularly in relation to non-narrative texts.

Of course, there is a danger in presenting reading comprehension skills in isolation, as pupils may not understand when and how to apply them. For this reason, multiple strategy instruction – teaching a combination of strategies as a set – has found some support in the research literature (US National Reading Panel, 2000). One example is reciprocal teaching (e.g., Rosenshine & Meister, 1994; Rosenshine, Meister & Chapman, 1996), where pupils are taught four strategies – summarizing, generating questions, clarifying, and predicting in an interactive setting. Another is 'transactional strategy instruction' (e.g., Brown, Pressley, Van Meter & Schuder, 1996), in which pupils are taught to apply a range of different strategies in their transactions with texts. However, implementation of multi-strategy instruction is not easy, and it may take a teacher several years to become fully proficient (US National Reading Panel, 2000).

At Fifth class level in the current study, inspectors identified teaching of reading comprehension skills and the comprehension of representational texts as among the weakest aspects of reading instruction. Although the PSEC refers to several important comprehension skills for pupils in Fifth and Sixth classes, including study skills and higher-order evaluative skills, it is clear that schools and teachers may need further support in teaching these skills so that pupils can learn to apply them flexibly to the various genres of text that they encounter, both in reading lessons, and in other subject areas. Such support should emphasise explicit modelling of skills by teachers during instruction.

The current study identified limited use of documents, reference and informational materials in both First and Fifth classes, while the recent Inspectorate review of curriculum implementation (2005a) identified the overuse of workbooks as a matter of serious concern. Effective implementation of the curriculum requires the use of a broad range of texts at all class levels, and a shift from reading schemes and workbooks to more authentic texts and writing tasks. A stronger emphasis on encouraging children to write in response to reading could improve reading comprehension and address some of the concerns around the teaching of writing raised in reviews by the Inspectorate (DES, 2005a) and the National Council for Curriculum and Assessment (NCCA, 2005). Although the PSEC provides several content objectives involving a response to reading through writing, these may not be sufficiently emphasised at an early stage. Further, since they appear under the

Emotional and Imaginative Development through Language strand, it may not be immediately obvious to teachers how they can be used to develop the cognitive aspects of reading comprehension.

The PSEC places a much stronger emphasis than its predecessor on oral language, and it was the topic most frequently raised by inspectors in the current study when invited to make additional comments about the teaching of English. Views were largely negative; reference was made to the lack of structure and planning in some oral language lessons, and to the neglect of parents' roles in promoting oral language. These views tie in with those of teachers surveyed by the NCCA (2005), where many described developing oral language as their greatest challenge, and of teachers interviewed by Eivers et al. (2004), many of whom felt that they had insufficient background knowledge to teach oral language.

In the context of the current study, it is particularly important that pupils engage in oral language activities that are relevant to developing their reading skills. Many activities designed to support children in developing their ability to respond to reading texts take place in oral language contexts. These include accessing prior knowledge, discussing reading vocabulary and concepts, making predictions about text content, responding to comprehension questions, and preparing to respond to reading through writing. It would seem important that oral language activities are planned around reading in a systematic manner so that important oral language objectives in the PSEC related to reading receive adequate attention.

The 1999 PSEC places a greater emphasis than its predecessor on using a variety of assessment techniques. Teachers in the current study reported use of a variety of techniques on a regular basis, suggesting that this aspect of the curriculum is being implemented. However, while almost all inspectors were satisfied with the *administration* of standardised tests in English, a majority were dissatisfied with how standardised and diagnostic tests were *interpreted* by teachers, and with how teachers used informal assessments such as teacher-made checklists, structured observations, and curriculum profiles to direct teaching. Other recent reviews of curriculum implementation found that assessment was not an integral part of teaching in more than a third of classrooms, possibly because only a minority of schools had a coherent assessment policy (DES Inspectorate, 2005a), and that teachers were unhappy with their own competencies in assessing pupils and with reporting assessment outcomes to parents (NCCA, 2005).

There is ample evidence that judicious use of assessment, particularly formative assessment techniques, can have very positive effects on pupil achievement, with the benefits strongest when pupils engage in self-assessment, and where teachers follow structured feedback procedures (see Black and Wiliam's 1998 comprehensive review for more details). Among the formative assessment tools for English suggested in the PSEC are portfolios, projects, curriculum profiles and records of children's oral reading. We propose that teachers need additional ICD (and more guidance at the school-level) on the use of assessment, and on how assessment outcomes should inform daily teaching practices.

Recommendations:

Teachers need to place greater emphasis on planning oral language, reading, and writing activities designed to enhance pupils' comprehension of text.

Teachers require additional support in teaching reading comprehension skills as they relate to different text genres, and in developing pupils' ability to respond to reading (including emotional and imaginative responses) through oral language and writing.

The over-use of published reading schemes and workbooks by many teachers should be replaced by the use of more authentic reading texts in a range of genres and by enhanced opportunities to engage in sustained writing in response to reading.

Teachers require ICD (and additional guidance at the school-level) on assessment, to enable them to use a wider variety of techniques, including formative assessment, and to use assessment outcomes to inform their daily teaching practices.

Information and Communication Technologies

Since NAER 1998, there has been a dramatic improvement in the availability of computers for use by pupils, but this has not led to ICT forming a regular or integral component of pupils' experiences in English lessons. Principals indicated that 12% to 16% of pupils hardly ever or never use computers for English lessons – an optimistic view when compared to class teachers' reports that over one-third of pupils rarely or never use computers for English lessons. Further, the evidence from this study, combined with that of the NCCA curriculum review (2005), suggests that in only a minority of classrooms is ICT used to teach higher order reading skills, to develop creative skills, or to develop pupils' research skills. However, using computers to transcribe written work (i.e., typing) is common. One-quarter of the schools in the survey had no written policy on the use of ICT in English, which may partially explain the disparity between principals' and class teachers' accounts, as well as the limited instructional use of ICT.

It is likely that use of ICT is related to teacher competence in ICT and to the availability of computers. Mulkeen (2004) found that almost 20% of Irish primary-school teachers had no internet or email skills, indicating that they would find it difficult to employ ICT in the classroom. Moreover, an OECD[1] survey of post-primary schools found that Ireland ranked last of 14 participating countries in teacher usage of ICT (OECD, 2004a). Regarding availability, a Eurobarometer survey placed Ireland 10th of 15 EU countries in a league table of students[2] per computer (cited in Mulkeen, 2004).

Of course, the availability and use of ICT is only relevant to reading standards if there is a demonstrable link between use and improved reading achievement. Thus far, the evidence is limited, with many of the earlier studies eschewing an evidence-based approach in favour of an assumption that ICT benefits pupils. A recent review of research on the topic found that while results were generally mixed, and hampered by limited use and access in schools, there was some evidence that ICT can contribute to improvements in English and reading (Cox, Abbott, Webb, Blakeley, Beauchamp & Rhodes, 2003). Positive effects were most likely to be found with pupils in the early stages of language development. Brooks (2002) also concluded that ICT could have a positive effect on reading, but only if properly targeted, and properly supported by teachers.

[1] OECD: the Paris-based Organisation for Economic Cooperation and Development, which advises member countries on policy development in a range of areas, including education.
[2] The survey examined all school types; data are not available for primary school pupils only.

Recommendation:
All teachers should receive training in the application of ICT to English lessons, in matching programmes to pupils, and in providing support to pupils using such programmes.

Co-ordination of Learning Support and Classroom Activities

Approximately 70% of learning-support teachers, class teachers and principals were reasonably satisfied with the integration of classroom activities with learning-support programmes. In contrast, between two-thirds and three-quarters of inspectors were dissatisfied. Without the more in-depth analysis that case studies could provide, it is difficult to establish which group's opinion more accurately reflects practice. However, activity-based reports from teachers in the current study certainly indicate a lack of co-ordination in some classrooms. Approximately one-quarter of class teachers said that, for pupils in receipt of learning support, they rarely implemented learning activities that were agreed with the learning-support teacher or rarely adjusted class work in line with agreed targets and activities. Further, teachers of one in five pupils indicated that they were unfamiliar with the Learning-Support Guidelines, while slightly less than half of pupils were taught by teachers who had contributed to the development of their school policy on learning support for English.

Thus, while the experiences of many pupils in the classroom and in learning support may be integrated, there seems to be a significant minority for whom they are not. Principals cited a shortage of learning-support time as one of the three most serious obstacles to the teaching of reading in their school. However, the provision of learning support in isolation from classroom experiences is not an efficient way to use learning-support teachers' time.

Recommendations:

Given a lack of integration between experiences in the classroom and in learning-support settings for a sizeable minority of pupils, school principals should work to provide opportunities for regular meetings between class and learning-support teachers, and to ensure that pupils' experiences in these settings are integrated.

All teachers should ensure that they are familiar with the Learning-Support Guidelines.

Assigning Teachers to Classes

While 3% of all teachers in our survey were unqualified, 9% of First class pupils (12% in schools designated as disadvantaged) were taught by an unqualified teacher. On average, First class teachers had two years less teaching experience than Fifth class teachers, but in designated schools, they averaged only half the teaching experience of Fifth class teachers in such schools, and almost half were in their first year of teaching. Many temporary teaching posts are held by experienced and qualified teachers, often for a number of years. However, in instances where temporary teachers are employed on a short-term basis, those in such posts may not provide pupils with the same level of continuity, or have the same background knowledge of a school's planning and policy as established members of staff. Thus, it is not ideal that 14% of First class pupils (rising to 30% in designated schools) are taught by a non-permanent teacher.

Similar teacher deployment practices were found in a 2004 survey in designated disadvantaged schools (Eivers et al., 2004). The findings may reflect the relatively

common view that experienced teachers should be placed in Senior classes because they are able to deal with the more widespread incidence of challenging behaviour in these classes. Thus, Junior classes (where teacher characteristics are most strongly related to achievement) are assigned the least experienced teachers, despite this being counter to what research recommends.

Recommendation:

Classes of beginning readers should be given priority by school principals when assigning qualified and experienced teachers.

In-Career Development

Although a positive link between ICD and improved pupil performance is generally assumed, relatively few empirical studies support it. An early study by Hanushek (1971) found that the recency of voluntary ICD was related to teacher performance, while more recently, the US National Assessment of Educational Progress (National Center for Educational Statistics, n.d., cited in Darling-Hammond, 2000) found that teachers who had had more professional training were more likely to use teaching practices associated with higher pupil reading achievement. Burkhouse, Loftus, Sadowski and Buzad (2003) also noted a significant correlation between teacher professional development and pupil reading comprehension. In our study, the number of ICD days attended by teachers is significantly related to First class pupil achievement, providing some evidence that ICD is linked to pupil performance. However, a sizeable minority of teachers had not attended any ICD on the PSEC in the last five years.

In addition to the number of teachers who have not participated in ICD, the type and quality of ICD offered are important issues. In the present survey, up to a quarter of teachers expressed dissatisfaction with the amount and quality of ICD available to them, while a recent survey reported that many teachers found ICD for English too theoretical to influence their teaching practices (Eivers et al., 2004). The literature suggests that 'one size fits all' courses have relatively little impact on teaching practices, that effective professional development should be based on the particular content material being taught, and that topics need to be addressed in terms of the particular contexts and problems experienced by the teachers (Darling-Hammond & Ball, 1997; Sugrue, 2002). ICD in successful school reform programmes such as Success for All and in the literature on effective schools in reading (e.g. Taylor, Pressley & Pearson, 2002) is school-based and consists of opportunities to plan, to reflect on teaching practice, and to review the implementation of new teaching and learning strategies in addition to information on teaching approaches. However, as noted in the recent Literacy and Numeracy in Disadvantaged Schools report, the fact that Irish teachers' participation in ICD is frequently on a voluntary, individual basis, outside of the school, militates against coherent whole-school responses to the particular needs and contexts of each school (DES, 2005b).

There has been a large decrease in the school-level pupil-teacher ratio since 1998, coupled with a decrease in average class size[3]. However, these decreases have not been accompanied by an improvement in reading achievement. This may in part be due to

[3] NAER comparison data on class size are unavailable, but evidence from other sources indicates that class sizes have decreased since 1998 (DES, 1999; DES 2004).

teachers not adapting their teaching practices to take into account reduced class sizes. Research has shown that teachers involved in initiatives to reduce class size are slow to change their existing teaching practices, even when given explicit guidelines about how to do so (Ehrenberg, Brewer, Gamoran & Williams, 2001). A review by Archer and Weir (2004) indicates that teachers require ongoing support and training (which few ICD courses provide) if they are to derive maximum benefit from class size reduction initiatives.

Recommendation:

Most ICD should be implemented within schools on an ongoing basis. This would enable the particular needs and circumstances of each school to be addressed in a more coherent manner, as well as making ICD more accessible to teachers.

The Role of the Home

It is perhaps stating the obvious to say that many non-school factors influence pupils' reading achievement. In this study, and many other studies in Ireland and elsewhere, home process and socioeconomic factors were found to be linked to pupil achievement. Thus, reading difficulties occurred disproportionately amongst pupils from low SES backgrounds, and from homes that did not provide a 'literacy rich' environment (e.g., where a child was rarely read to, prior to enrolling in school). Significant improvements in national socioeconomic conditions since the last national assessment in 1998 are reflected in the data. For example, the percentage of pupils in households with no parent in employment dropped from 18% to 8%, while the proportion with a quiet place to study doubled. However, these improvements have not been reflected in improved pupil achievement. This may be because there have been no significant changes in other relevant variables: number of books in the home; home access to an encyclopaedia or dictionary; public library membership; the proportion of parents who make rules about the type and amount of TV that their child watches. While there has been a significant increase in the proportion of pupils who play computer games, up to half of parents do not have any rules regarding the types of games their child can play.

On the assumption that many parents do not understand the extent to which the atmosphere and resources in the home can influence their children's literacy skills, we propose a two-tiered approach. Firstly, on the basis that over a quarter of schools in the current study had no written policy on parental involvement in reading/writing development, we propose an enhanced role for schools in advising parents about how to promote reading achievement. We endorse the recommendation in the LANDS report (DES, 2005b) that the Home/School/Community Liaison (HSCL) service should disseminate details of successful initiatives to all schools (including those not categorised as disadvantaged). However, as the pre-school years are crucial for developing literacy, it is clear that agencies other than schools also have a role to play. Thus, we propose the initiation of information campaigns targeted at parents of pre-school children, to apprise them of their role in developing their child's literacy. Such campaigns could be developed by the DES, in co-operation with organisations such as the Health Service Executive, the National Parents Council and the Department of Social and Family Affairs.

Recommendations:

Parents of pre-school children should be targeted by information campaigns explaining the importance of providing educational resources in the home, of developing children's

vocabulary, and of engaging in literacy-related interactions (e.g., regularly reading to their child).

All schools should make significant efforts to help parents in developing their children's language and literacy skills. To facilitate the adoption of effective strategies, the HSCL service should disseminate details of successful initiatives to all schools (including those not categorised as disadvantaged).

Children at Risk of Reading Difficulties

Data from our study support the view that a number of factors are associated with reading difficulties (e.g., membership of the Traveller community, speaking a language other than English or Gaeilge at home, living in a lone-parent or low SES household, with unemployed parents, in a home that has few educational resources). Furthermore, pupils who are at risk from a variety of sources are often concentrated in designated disadvantaged schools, where the school context effect can exacerbate individual risk factors. Government efforts to assist such pupils have been concentrated at school level (e.g., designating schools as disadvantaged) and at individual level (e.g., learning support, language support, or resource teaching). However, the data indicate that despite the considerable additional resources allocated since 1998 to designated schools and to an expanded supplementary support service, the reading achievement of pupils in designated schools has not improved significantly.

Since the current survey was carried out, the DES has launched DEIS – an action plan for educational inclusion (DES, 2005). There are many positive elements of DEIS, including the proposed integration of the various schemes to redress disadvantage and an emphasis on whole-school approaches, but how it will affect practice is currently unclear. The proposed roll-out of Reading Recovery to a larger number of disadvantaged schools is welcome, but we would hope that teachers realise that, on its own, this well-known programme is insufficient to meet the needs of pupils in very disadvantaged schools. In such schools, gains made from individual-level interventions tend to be short-term, unless accompanied by whole-school approaches designed to build on those gains, as well as support the needs of pupils not in receipt of the intervention.

The expansion of the First Steps programme (also proposed in DEIS) may lead to enhanced teaching and assessment procedures in some designated schools. The programme's implementation should be carefully monitored to ascertain whether it provides teachers with generic skills in areas such as text selection, assessment, identification of pupil needs, and implementation of strategies to promote reading development and to address reading difficulties. Moreover, the risk of relying on a single programme (such as First Steps) to promote reading improvement at classroom level should be recognised. Finally, while DEIS recognises that pupils in designated schools may have 'language deficits', it does not propose that additional English lesson time be provided. Data from the present study suggest that pupils in designated schools receive *less* English instruction than pupils in more advantaged schools, making one wonder how pupils are expected to close the large achievement gap.

Recommendations:

Efforts to improve reading achievement in schools in disadvantaged areas should acknowledge the sometimes negative effects of school context on the achievement of individual pupils. To address the issue, interventions that attempt to bring about

improvement at the level of individual pupils must be complemented by whole-school approaches that address the literacy needs of all pupils.

Children at risk of reading difficulties should receive a greater amount of reading instruction, preferably through a combination of increased English lesson time and participation in targeted after-school support programmes.

Children who are at risk of experiencing reading difficulties, including children for whom the language of instruction is not their first language and children from the Traveller community, should receive extensive additional support, irrespective of school context.

Gender Differences

As in the 1998 assessment (and as in most studies that examine the relationship between gender and reading achievement), boys achieved a lower mean score than girls on the overall scale, and on the narrative and documents subscales, but not on the expository subscale (which involves reading continuous texts for informational purposes). These results are somewhat reflected in the views of inspectors. Many felt that boys tended to be poorer readers than girls, and that while girls enjoyed reading a variety of materials, boys tended to have a more restricted range of interest (limiting their reading to factual materials on topics such as sports). Some remarked on the 'feminisation' of the teaching profession, and indicated that this might have negative effects on boys' reading achievement. However, our data indicate that the mean scores of boys taught by a female teacher did not differ significantly from the mean scores obtained by boys taught by a male teacher (while First class girls taught by a female achieved a significantly higher mean score than those taught by a male). Thus, the fact that most teachers are female does not seem to be responsible for boys' poorer achievement.

Some inspectors noted that class libraries did not always contain material that responded to boys' interests, while teacher reports indicated that class libraries were largely composed of fiction books, particularly at First class. For both boys and girls, the most effective class libraries are those that contain well-written texts representing a mixture of subjects, genres and reading levels. We suggest that the topics covered by texts should reflect a variety of interests and that class libraries should include a broader range of non-fiction texts. Parents also have a role to play in encouraging boys to venture outside the more stereotypical topics of interest, such as cars and football.

Recommendations:

Class libraries should be composed of texts reflecting a variety of interests and should include a broad range of non-fiction texts.

Boys should be encouraged, by their parents in particular, to read texts covering a variety of genres and topics.

National Assessment of First Class Pupils

The 2004 assessment differed from previous assessments in that it was the first to examine the reading achievement of pupils in First class. Analysis of data from First class pupils revealed a bimodal distribution of achievement, which was not found at Fifth class. Pupils were divided into two distinct groups (those who found the test quite difficult and those who found it relatively easy). A similar distribution was found for First class pupils, but

not for other grade levels, in a recent survey of literacy in designated disadvantaged schools (Eivers et al., 2004), indicating that it is not specific to the present survey or test instrument.

In light of these findings, we propose that the inclusion of First class pupils in NAER should be reconsidered. We also note that national assessments in other countries (e.g., National Assessment of Educational Progress in the US) generally do not take place until the equivalent of Third class, while in England, assessment of English at the equivalent Key Stage no longer employs an external paper-and-pencil assessment, but is conducted using teacher assessments only. Our caution about the value of assessing First class pupils applies to national assessments only – clearly, teacher assessment of pupil achievement in First class (and below) and the use of diagnostic testing remain important activities.

Recommendation:

The appropriateness and value of testing First class pupils in national assessments (as distinct from teacher and diagnostic assessments) of English reading should be reconsidered.

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