Literacy in Disadvantaged Primary Schools: Problems and Solutions

Eemer Fivers
Gerry Shiel
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Educational Research Centre
LITERACY IN DISADVANTAGED PRIMARY SCHOOLS

Problems and Solutions
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Educational Research Centre
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The 2001 *Review of the National Anti-Poverty Strategy* (Goodbody Economic Consultants, 2001) proposed a target of halving the proportion of pupils with serious literacy difficulties in designated disadvantaged primary schools by 2006. Arising from this target, the Department of Education and Science asked the Educational Research Centre in June 2002 to conduct a survey of reading standards in these schools.

The subsequent report – *Reading Literacy in Disadvantaged Primary Schools* (Eivers, Shiel & Shortt) – was published in 2004. The present report is designed for a general audience, and summarises the findings and recommendations of the larger, more technical, report.

This report is divided into nine chapters. Chapter 1 provides some background to the survey, and describes how it was conducted. Chapter 2 describes some of the main achievement outcomes, including a comparison of the reading achievements of pupils in designated disadvantaged schools with achievement nationally. Chapters 3 to 5 describe some of the pupil, home and classroom characteristics associated with reading achievement, while Chapter 6 describes learning-support provision. Chapter 7 outlines some features of the schools surveyed, while Chapter 8 describes how multilevel modelling was used to examine the contribution to reading achievement of a range of explanatory variables. Finally, Chapter 9 summarises the main recommendations arising from the study.

**Acknowledgements**

We wish to acknowledge the help of an Advisory Committee, appointed to advise the Educational Research Centre on its work on the survey. The committee members were: Bairbre Boylan (National Council for Curriculum and Assessment), Carmel Nic Airt (An Foras Pátrúnachta), Éamonn Murtagh and Richard Byrne (Inspectorate: Department of Education and Science), Seamus McLoughlin and Jim O'Donovan (Social Inclusion Unit: Department of Education and Science), Máire Ní Choileáin (Gaelscoileanna), Mary Killeen (National Parents’ Council – Primary), Noel Ward (Irish National Teachers’ Organisation), Ruby Morrow (Church of Ireland Board of Education), and Sr Bernadette Sweeney (Catholic Primary School Managers’ Association).
We would also like to acknowledge the help of those at the Dublin Adult Learning Centre, who reviewed the Parent Questionnaire. Thanks are due to staff at the ERC, including John Coyle, Mary Rohan, Hilary Walshe and Rachel Perkins. Particular thanks are due to the Director, Dr Thomas Kellaghan, for his help and guidance throughout the study, to Dr David Millar, for advice on sampling and weighting, and to Deirdre Hackett for her work on IRT scaling. We would also like to acknowledge the co-operation of school principals, teachers, pupils and parents who participated in either the pilot or main study.
Chapter 1
Overview of the Survey

There is a clear association between educational disadvantage (or socioeconomic status, a central component of educational disadvantage) and literacy achievement. Put simply, children from lower socioeconomic backgrounds tend to be over-represented among those with reading difficulties. Numerous Irish studies have found that reading achievement is below average in schools where a large proportion of pupils are from disadvantaged backgrounds, or where the school is designated as disadvantaged (e.g., Archer & O’Flaherty, 1991; Cosgrove, Kellaghan, Forde & Morgan, 2000; Hayes & Kernan, 2001; McDonald, 1998; Weir & Eivers, 1998; Weir, Milis & Ryan, 2002).

One problem with these studies is that none set out to provide a description of the reading achievements of pupils in a full range of disadvantaged schools. Some (such as those by Weir and her colleagues, who examined achievement in Breaking the Cycle schools) focused on a subset of the most disadvantaged schools. Others, such as the Cosgrove et al. study, are based on nationally representative samples, which typically do not include a sufficiently large number of disadvantaged schools or pupils to allow for precise estimates of achievement. This survey attempts to address these problems.

The Reasons for a Survey

One of the key education targets of the National Anti-Poverty Strategy is the halving of the proportion of primary school pupils with serious literacy difficulties by 2006. The Review of the National Anti-Poverty Strategy (Goodbody Economic Consultants, 2001) proposed as a related target a halving of the number of pupils with serious literacy difficulties in designated disadvantaged primary schools by 2006.

As a result of the target in the Goodbody review, the Department of Education and Science (DES) asked the Educational Research Centre to conduct a survey of reading literacy in a representative sample of designated disadvantaged primary schools. The main aims of the survey, which was carried out in 2003, were to:

1. obtain baseline data on the reading achievement of pupils in First, Third and Sixth classes in a sample of designated disadvantaged schools;
2. identify factors associated with the reading achievement of pupils in designated disadvantaged schools;

3. make recommendations that would facilitate the DES and designated disadvantaged schools in reaching the targets for reading literacy specified in the National Anti-Poverty Strategy.

Pupils who score at or below the 10th percentile (i.e., in the lowest 10% of test scores) on standardised tests of reading are viewed by the DES as needing additional support. Thus, for this survey, scores at or below the 10th percentile were taken as indicating ‘serious reading difficulties’.

How Reading Achievement Was Assessed

The test chosen to assess reading was the Drumcondra Sentence Reading Test (DSRT). There are six levels of the DSRT, corresponding to First to Sixth classes (inclusive). Pupils are allowed 20 minutes to complete the test, which contains 40 multiple-choice items at each level. Each item consists of a sentence with a word missing, where pupils must select the missing word from four possible options.

A limitation of the DSRT is that it cannot be used to examine specific components of reading, such as vocabulary and reading comprehension. Nonetheless, it was chosen because it has up-to-date (May 2002) national norms for First through Sixth classes, it is short and relatively simple to administer, it is unfamiliar to schools and pupils, and it has satisfactory reliability.

Other Types of Information Gathered

As one of the main purposes of the survey was to describe the factors associated with reading achievement, a number of questionnaires were used to collect contextual data. A School Questionnaire was distributed to school principals, to obtain information about school characteristics (ranging from enrolment characteristics to school planning and school resources). Separate questionnaires were developed for Class Teachers and Learning-Support Teachers, examining issues such as their background characteristics (gender, qualifications), their teaching practices, their views on the school in which they worked, and the resources available to them.

Class teachers also completed a Pupil Rating Form for each pupil who completed the DSRT. These forms asked teachers to provide some background details about each pupil and to rate each one on a number of variables, including achievement in English and engagement with school. A Parent Questionnaire was sent to parents (or guardians) of each pupil in the survey. It examined
parental background characteristics, literacy-related activities and educational materials in the home, and parents’ views on their children’s reading achievement. Separate Pupil Attitude Questionnaires were developed for First class pupils and for Third and Sixth class pupils.

**Schools and Pupils Surveyed**

A total of 94 designated disadvantaged schools (randomly selected) took part in the survey. Within each school, up to two classes of pupils in First, Third and Sixth class (or, whichever of these three grade levels were offered by the school) were assessed. As shown in Table 1.1, over 2,000 pupils completed the DSRT at each grade level, with a relatively even split between the number of boys and girls assessed.

<table>
<thead>
<tr>
<th></th>
<th>1st class (N=2200)</th>
<th>3rd class (N=2120)</th>
<th>6th class (N=2141)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boys</strong></td>
<td>49%</td>
<td>47%</td>
<td>51%</td>
</tr>
<tr>
<td><strong>Girls</strong></td>
<td>51%</td>
<td>53%</td>
<td>49%</td>
</tr>
</tbody>
</table>

Roughly 90% of pupils in the selected classes completed the DSRT. Less than 1% of pupils were exempted from testing because their teacher felt that they would be unable to complete the test. The remainder were not tested either because they were absent on the day, or were unavailable at the time of testing.

Almost all pupils who completed the DSRT also completed the Pupil Attitude Questionnaire, which was administered on the same day. Pupil Rating Forms were returned for 98% of pupils tested, while Parent Questionnaires were returned in approximately 86% of cases. Further, 96% of principals returned School Questionnaires, while over 90% of class teachers and learning-support teachers returned their questionnaires.

As overall response rates were high, the survey data can be taken as representative of the situation in designated schools.

**How the Survey was Administered**

DSRT administration was carried out in each school by trained administrators, while class teachers typically administered the Pupil Attitudes Questionnaire. Where possible, the DSRT and the Pupil Attitudes Questionnaire were administered on the same day, to secure against increasing rates of missing data due to absenteeism. To ensure test security (important if the test is to be used in any future assessment) all DSRT booklets were removed from schools after testing.
Statistical Terms Used in This Report

This report is designed for a general readership. However, we have included some statistical terms, in order to describe our findings. These terms are explained below. The first time a term is mentioned in the report, it will be shaded, indicating that you can check this page if you are unsure what the term means.

**Correlation**

A correlation measures the relationship between two variables. Values can range from –1 to +1. A negative correlation means that as one variable increases, the other decreases; a positive correlation means that both either increase or decrease together.

A value of 0 indicates no relationship between variables, while the closer a value becomes to ±1, the stronger the relationship between variables. A strong correlation does not necessarily mean that one variable causes the other: always consider the possible influence of other factors.

**Scale Score**

When a pupil completes a test, some basic calculations are carried out to check how many answers are correct. These raw scores are then converted to scale scores, which give a more regular distribution of scores, and allow comparison across tests.

DSRT test results were scaled so that the average scale score on the test is 100, with a standard deviation of 15. This means that 68% of pupils’ scores fall within one standard deviation above or below the average of 100 (i.e., between 85 and 115).

**Significant difference**

A significant difference in achievement between groups is one that a statistical test has established is unlikely to be due to chance.

**Percentile Rank**

A percentile rank indicates how a pupil’s scale score compares with scores of pupils in the test standardisation group. Where a pupil has a percentile rank of 10, this means that s/he did as well as or better than 10% of pupils in the test standardisation group. As the DSRT was standardised on a nationally representative sample, the percentile rank can be used to compare an individual or group to pupils nationally.
Chapter 2
How Pupils Performed on the Test

In this chapter, the performance of pupils in the Literacy Survey is compared with that of a national sample of pupils who participated in the standardisation of the DSRT. Test scores are also related to pupils’, teachers’ and parents’ ratings of pupil achievement.

Comparison With National Norms

As shown in Figure 2.1, pupils in the Standardisation Study answered more items correctly than those in the Literacy Survey. Nationally (i.e., in the Standardisation Study), First class pupils answered an average of 62% of items correctly, while pupils in the Literacy Survey answered only 47%.

Figure 2.1: Average percentages of items answered correctly by pupils in the Literacy Survey and Standardisation Study

Next, the raw test scores were converted to scale scores. Again, pupils in the Literacy Survey had lower average scores than pupils nationally. The difference ranged from 8 points in First class to 11 points in Third class (see Table 2.1). Thus, the results of the survey support previous Irish research which has found that pupils in disadvantaged schools tend to have poorer reading achievement scores than those in non-disadvantaged schools.

Table 2.1: Average scale scores nationally and for the Literacy Survey

<table>
<thead>
<tr>
<th></th>
<th>1st class</th>
<th>3rd class</th>
<th>6th class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nationally</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Literacy Survey</td>
<td>91.6</td>
<td>89.0</td>
<td>90.4</td>
</tr>
</tbody>
</table>
**Low Achievers and High Achievers**

Table 2.2 shows the percentages of pupils with scores at or below the 10th percentile and at or above the 90th percentile. In simple terms, these are pupils with serious reading difficulties ($\leq$ the 10th percentile) and pupils who are very high achievers ($\geq$ the 90th). In the Literacy Survey, 27% to 30% of pupils can be described as having serious reading difficulties, compared to roughly 10% of pupils nationally. Only 3% to 4% can be described as very high achievers, compared to approximately 10% of pupils nationally.

<table>
<thead>
<tr>
<th></th>
<th>1st class</th>
<th>3rd class</th>
<th>6th class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\leq$ 10th</td>
<td>$\geq$ 90th</td>
<td>$\leq$ 10th</td>
</tr>
<tr>
<td>Nationally</td>
<td>9.9</td>
<td>10.4</td>
<td>9.8</td>
</tr>
<tr>
<td>Literacy Survey</td>
<td>26.7</td>
<td>4.1</td>
<td>29.5</td>
</tr>
</tbody>
</table>

**A Test-Wide Scale**

One of the advantages of the test used, the DSRT, is that scores can be placed on a test-wide scale. This means that the scores of pupils at any grade level can be placed on a single overall scale. This allows us to look at the progression of reading over time, comparing pupils in the survey with pupils nationally.

Figure 2.2 shows that the average score of First class pupils in the Literacy Survey is below that of First class pupils nationally. However, although the gap between the two groups persists through to Sixth class, it does not widen over time, as research from other countries suggests might happen (e.g., Stanovich, 1986).

![Figure 2.2: Mean DSRT test-wide scale scores of pupils in the Standardisation Study and Literacy Survey](image)
Comparisons Within the Literacy Survey

In the last section, we compared the achievements of pupils in the Literacy Survey with those of pupils in a national sample. In the remainder of this report, we will focus on pupil performance in the designated disadvantaged schools only. To facilitate this, scores of pupils in the Literacy Survey were re-scaled, so that, at each grade level, the average score was 100. Thus, for example, a pupil with a scale score of 89 would have been assigned a new re-scaled score of 97. The re-scaled scores are used throughout the rest of this report.

Rated Achievement and Test Scores

Parents, pupils and teachers were asked to rate pupils on reading ability. Pupils given positive ratings (by a parent, teacher, or by themselves) tended to have higher than average scores on the DSRT. However, there were differences between the three groups in the types of ratings given.

Most First class pupils rated themselves as very good at reading (though the relationship between ratings and test scores was weak). Third and Sixth class pupils tended to have more varied opinions on their reading skills (and the relationship between self-rating and achievement was much stronger).

Parents’ ratings tended to be very positive at each of the three grade levels, with approximately two-thirds rating their child as very good at reading. Only 6% rated their child as ‘not great’ at reading. Teachers’ ratings were less positive. For example, they described at least 40% of pupils at each grade level as having only a weak or basic proficiency in reading.

Overall, teacher ratings showed the strongest correlation with achievement. In other words, the link between rated achievement and actual achievement was strongest when teacher ratings were used.

Chapter Highlights

Between 27% and 30% of pupils First, Third and Sixth class in designated disadvantaged schools have ‘serious reading difficulties’.

Average reading achievement is significantly lower in disadvantaged schools than in a representative national sample.

The achievement gap between the disadvantaged and general populations does not widen over time.

Teacher ratings of academic skills are more closely related to pupils’ test achievement than ratings supplied by pupils and parents.

Almost two-thirds of parents believe their child is ‘very good’ at reading.
## How Pupils Performed on the Test
Chapter 3
Pupil Characteristics

In this chapter we describe how performance on the reading test – the DSRT – relates to various characteristics of pupils. All scores shown are re-scaled (see ‘Comparisons Within the Literacy Survey’ in Chapter 2). Thus, scores average 100, even though they would average below 100 if national norms were used.

Background Characteristics

In First and Third class, girls have significantly higher average (or mean) reading scores than boys (see Table 3.1). Also, larger proportions of boys than of girls score at or below the 10th percentile at these class levels, while greater proportions of girls score at or above the 90th percentile. In other words, in First and Third class, more boys than girls have serious reading difficulties, and more girls than boys have high reading achievement.

In Sixth class, the differences between boys and girls are not statistically significant.

Table 3.1: Mean scores for boys and girls, and percentages scoring at or below the 10th percentile, and at or above the 90th percentile

<table>
<thead>
<tr>
<th></th>
<th>1st class</th>
<th></th>
<th>3rd class</th>
<th></th>
<th>6th class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean score</td>
<td>Percentile ≤ 10th</td>
<td>≥ 90th</td>
<td>Mean score</td>
<td>Percentile ≤ 10th</td>
</tr>
<tr>
<td>Girls</td>
<td>102.1</td>
<td>7.8</td>
<td>10.9</td>
<td>102.2</td>
<td>6.2</td>
</tr>
<tr>
<td>Boys</td>
<td>98.0</td>
<td>12.0</td>
<td>9.2</td>
<td>98.0</td>
<td>13.4</td>
</tr>
</tbody>
</table>

Almost all pupils in the survey were Irish-born and spoke English or Irish as their first language. Sixth class pupils who spoke a language other than English or Irish average significantly lower scores than English speakers.

Almost 3% of pupils surveyed were from the Traveller community. Across all grades, these pupils have average scores that are far lower than pupils from the settled community.

Experience of Pre-School

At each grade level, at least 80% of pupils had attended some form of pre-school or playgroup (Table 3.2). Early Start attendance was highest in First class (21% of pupils) and lowest in Sixth class (7%). Sixth class pupils who attended Early Start have significantly
lower average achievement scores than those who attended other pre-school programmes. However, unlike those in First and Third class, most Sixth class pupils whose parents indicated that they had attended Early Start were not currently enrolled in schools associated with the programme. Therefore, parental recollections should be treated with caution, as some of these pupils may have been enrolled in programmes other than Early Start.

Table 3.2: Mean DSRT scores and pre-school attendance

<table>
<thead>
<tr>
<th></th>
<th>1st class</th>
<th></th>
<th>3rd class</th>
<th></th>
<th>6th class</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Mean</td>
<td>% Mean</td>
<td>% Mean</td>
<td></td>
<td>% Mean</td>
<td></td>
</tr>
<tr>
<td>Early Start</td>
<td>20.8 99.1</td>
<td>16.6 100.4</td>
<td>7.3 96.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Pre-school/</td>
<td>64.7 102.2</td>
<td>66.9 101.9</td>
<td>73.3 102.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playgroup</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>14.6 98.1</td>
<td>16.6 98.1</td>
<td>19.4 97.9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Behaviour and Engagement in School / Reading

At each grade level, the average pupil attendance rate was 90%. Reading test scores are positively correlated with attendance, meaning that regular attenders tended to have higher scores. The relationship between attendance and achievement is strongest in First and weakest in Sixth class.

At least 75% of pupils were rated by their teacher as having average or above average behaviour in school, participation in class, persistence in schoolwork, attention and concentration in class, and ability to work independently. For each of these, pupils rated as above average tended to have higher DSRT scores than those rated as below average.

Third and Sixth class pupils were asked how often they read books for fun at home. As can be seen from Table 3.3, the more frequently pupils read for fun, the higher their test scores tended to be. For example, Sixth class pupils who read for fun on a daily basis have an average score that is almost 12 points higher than those who hardly ever read for fun.

Regular reading for fun was more common amongst Third class than amongst Sixth class pupils.

Table 3.3: Mean DSRT scores and frequency of reading books for fun at home, Third and Sixth class

<table>
<thead>
<tr>
<th></th>
<th>3rd class</th>
<th></th>
<th>6th class</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Mean</td>
<td></td>
<td>% Mean</td>
<td></td>
</tr>
<tr>
<td>Every day</td>
<td>43.0 102.5</td>
<td>27.0 106.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2 week</td>
<td>27.5 100.2</td>
<td>29.4 98.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Few times a month</td>
<td>12.8 99.1</td>
<td>20.5 99.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hardly ever or never</td>
<td>16.6 94.1</td>
<td>23.1 94.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Receipt of Additional Support

Large numbers of pupils (up to 26%) were in receipt of assistance in English from a learning-support teacher, while up to 8% were described as needing, but not receiving, learning support (Table 3.4). At each grade level, those in receipt of such support have average scores that are much lower than those of pupils not in receipt of support.

<table>
<thead>
<tr>
<th></th>
<th>1st class</th>
<th>3rd class</th>
<th>6th class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>Mean</td>
<td>%</td>
</tr>
<tr>
<td>Not in need</td>
<td>69.5</td>
<td>101.3</td>
<td>72.3</td>
</tr>
<tr>
<td>Needs, &amp; receives LS</td>
<td>25.6</td>
<td>88.2</td>
<td>22.3</td>
</tr>
<tr>
<td>Needs, but not in receipt</td>
<td>4.9</td>
<td>88.5</td>
<td>5.4</td>
</tr>
</tbody>
</table>

Between 8% (First class) and 14% (Third and Sixth class) of pupils had been diagnosed as having a learning disability in English. Average DSRT scores for those diagnosed and in receipt of resource teaching are significantly poorer than those of pupils not diagnosed with a learning disability. As is the case of pupils in learning-support, the size of the difference is at least 13 points.

Pupil Attitudes

Pupils’ attitudes to reading are also linked to reading achievement (Table 3.5). Those who agreed that they liked reading have significantly higher DSRT scores than pupils who disagreed. For example, the 30% of Sixth class pupils who agreed a lot that they liked reading have an average score of 105.8, compared to an average score of 94.1 for the 7% who disagreed a lot.

<table>
<thead>
<tr>
<th></th>
<th>3rd class</th>
<th>6th class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>Mean</td>
</tr>
<tr>
<td>Agree a lot</td>
<td>53.8</td>
<td>101.9</td>
</tr>
<tr>
<td>Agree</td>
<td>21.2</td>
<td>101.7</td>
</tr>
<tr>
<td>Not sure</td>
<td>9.3</td>
<td>96.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>5.7</td>
<td>95.3</td>
</tr>
<tr>
<td>Disagree a lot</td>
<td>10.0</td>
<td>94.1</td>
</tr>
</tbody>
</table>

The relationship between attitude to school and scores on the reading test is more complex. Those who agreed a lot that they liked school achieved average scores that are similar to those achieved by pupils who disagreed a lot that they liked school.
Educational Aspirations and Expectations

Third and Sixth class pupils were asked about their educational aspirations and expectations (how far they would like to go in school and how far they expected to go). High aspirations and expectations were common, and were associated with higher scores on the reading test.

For example, 64% of Sixth class pupils wanted to go to college; these pupils have a mean achievement score of 103.5, compared to a mean score of 95.0 for the 22% who wanted to finish full-time education after completing the Leaving Certificate (Table 3.6).

Only a small minority of pupils either hoped or expected that primary school would be the highest level of education they would complete. The less than 1% of Sixth class pupils who hoped or expected to leave school after completing their primary education had by far the lowest mean scores of any group.

Table 3.6: Educational aspirations and expectations of Third and Sixth class pupils, and associated mean test scores

<table>
<thead>
<tr>
<th></th>
<th>Primary</th>
<th>Junior Cert.</th>
<th>L. Cert.</th>
<th>College</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How far would you like to go in school?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd class %</td>
<td>4.8</td>
<td>3.8</td>
<td>13.0</td>
<td>59.8</td>
<td>18.6</td>
</tr>
<tr>
<td>Mean</td>
<td>96.4</td>
<td>92.0</td>
<td>98.0</td>
<td>102.7</td>
<td>95.8</td>
</tr>
<tr>
<td>6th class %</td>
<td>0.9</td>
<td>3.8</td>
<td>21.6</td>
<td>64.2</td>
<td>9.5</td>
</tr>
<tr>
<td>Mean</td>
<td>87.2</td>
<td>89.0</td>
<td>95.0</td>
<td>103.5</td>
<td>93.5</td>
</tr>
<tr>
<td><strong>How far do you think you will go in school?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd class %</td>
<td>3.9</td>
<td>4.8</td>
<td>16.0</td>
<td>51.4</td>
<td>23.9</td>
</tr>
<tr>
<td>Mean</td>
<td>93.4</td>
<td>92.2</td>
<td>100.2</td>
<td>102.4</td>
<td>97.5</td>
</tr>
<tr>
<td>6th class %</td>
<td>0.8</td>
<td>5.2</td>
<td>28.4</td>
<td>48.5</td>
<td>17.1</td>
</tr>
<tr>
<td>Mean</td>
<td>85.7</td>
<td>90.6</td>
<td>96.2</td>
<td>105.0</td>
<td>96.6</td>
</tr>
</tbody>
</table>

Chapter Highlights

In First and Third class, girls have significantly higher average achievement scores than boys, and fewer girls have ‘serious reading difficulties’.

By Sixth class, these gender differences are no longer statistically significant.

Pupils from the Traveller community achieve lower average scores than pupils from the settled community.

Depending on grade level, up to 26% of pupils are receiving learning-support, and up to 12% are receiving resource teaching.

Pupils who expressed positive attitudes to reading, and who regularly read for fun, have significantly higher average scores than their classmates.
Chapter 4
Home Background

In this chapter, some characteristics of pupils’ families and of their home environment are described.

**Household Composition**

Just under two-thirds of pupils lived with both their parents, while 25% to 31% (Sixth and First class, respectively) lived in a female-headed lone-parent household. Those living in a lone-parent household averaged significantly poorer reading test scores than those living in other forms of household.

The typical First class pupil had one sibling, while two siblings was the norm for Third and Sixth class pupils. At each grade level, as family size increased, DSRT scores tended to decrease.

**Socioeconomic Indicators**

Across grade levels, at least 70% of pupils had a minimum of one parent in employment, and these pupils have significantly higher mean test scores than pupils living in households where no parent is in employment, or pupils of parents for whom employment status is unknown (Table 4.1).

<table>
<thead>
<tr>
<th>Table 4.1: Parental employment status and mean DSRT scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>At least 1 employed parent</td>
</tr>
<tr>
<td>No parent employed</td>
</tr>
<tr>
<td>Missing data</td>
</tr>
</tbody>
</table>

Parental occupations were coded using the ISEI scale of occupational status (Ganzeboom, De Graaf, & Treiman, 1992). The scale ranges from 16 to 90, and higher scores reflect higher socioeconomic status. For example, scores of 16 are assigned to domestic cleaners, while scores of 90 are assigned to judges.

Maternal and paternal scores were combined (highest value taken) to produce a ‘family’ score. Many scores clustered at the lower end of the scale, indicating that pupils came from predominantly low socioeconomic status backgrounds. Those whose parents had higher status occupations tended to have higher achievement scores.
Approximately half of all pupils were covered by the medical card scheme, and these pupils’ average test scores are significantly lower than those of pupils whose families did not have a medical card (Table 4.2). Between 25% and 31% of pupils had at least one early school leaver parent (i.e., a parent who had left the formal education system without completing Junior Cycle). At each grade level, pupils who had an early school leaving parent tended to have poorer DSRT scores.

Table 4.2: Percentages of pupils covered by medical cards, percentages with a parent who is an early school leaver, and mean achievement

<table>
<thead>
<tr>
<th></th>
<th>1st class</th>
<th></th>
<th>3rd class</th>
<th></th>
<th>6th class</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>Mean</td>
<td>%</td>
<td>Mean</td>
<td>%</td>
<td>Mean</td>
</tr>
<tr>
<td>Medical Card?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>49.9</td>
<td>97.04</td>
<td>50.8</td>
<td>97.0</td>
<td>45.1</td>
<td>97.1</td>
</tr>
<tr>
<td>No</td>
<td>50.1</td>
<td>104.7</td>
<td>49.2</td>
<td>105.1</td>
<td>54.9</td>
<td>103.9</td>
</tr>
<tr>
<td>ESL parent?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>24.9</td>
<td>97.1</td>
<td>29.6</td>
<td>95.1</td>
<td>30.9</td>
<td>96.8</td>
</tr>
<tr>
<td>No</td>
<td>75.1</td>
<td>102.7</td>
<td>70.4</td>
<td>103.9</td>
<td>69.1</td>
<td>103.6</td>
</tr>
</tbody>
</table>

The Home Environment

Approximately a quarter of parents at each of the three grade levels indicated that someone in their home (not necessarily a parent) had read to their child on a daily basis before the child started school. Five percent indicated that this rarely or never happened. Pupils who had been read to regularly before starting school have much higher achievement scores than those rarely or never read to.

Between 38% and 48% of parents (First and Sixth class, respectively) indicated that, while in Infants classes, their child had read to someone every day. Such pupils averaged much higher scores on the DSRT than pupils who rarely read with an adult while in Infants classes.

Parents were asked whether their child used an atlas, a family dictionary or a computer in the home. Information on usage was summed to create a measure of the number of such resources used in the home. At each grade level, the more resources a pupil used, the higher their test scores tended to be.

At least two-thirds of pupils came from homes where someone was a member of a public library. Such pupils achieved significantly higher scores than pupils from families where nobody was a library member. Similarly, pupils whose parents regularly read newspapers or books achieved higher average scores than those whose parents infrequently read newspapers or books.
As shown in Table 4.3, approximately a quarter of pupils had between zero and ten books in their home (once school books were excluded). Indeed, 3% to 4% had no books in their home.

There is a very clear and strong relationship between larger numbers of books in the home and higher scores on the reading test. For example, Third class pupils whose homes had no books have an average score of 89.7, whereas those with more than 250 books have an average score of 112.7.

Table 4.3: Number of books in the home, percentages with each number, and mean DSRT scores

<table>
<thead>
<tr>
<th></th>
<th>1st class</th>
<th></th>
<th>3rd class</th>
<th></th>
<th>6th class</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>Mean</td>
<td>%</td>
<td>Mean</td>
<td>%</td>
<td>Mean</td>
</tr>
<tr>
<td>None</td>
<td>3.7</td>
<td>93.0</td>
<td>3.1</td>
<td>89.7</td>
<td>2.7</td>
<td>90.1</td>
</tr>
<tr>
<td>1 – 10 books</td>
<td>21.7</td>
<td>96.3</td>
<td>22.2</td>
<td>94.3</td>
<td>19.6</td>
<td>93.5</td>
</tr>
<tr>
<td>11 – 50 books</td>
<td>34.7</td>
<td>100.2</td>
<td>34.6</td>
<td>99.6</td>
<td>33.0</td>
<td>98.7</td>
</tr>
<tr>
<td>51 – 100 books</td>
<td>20.4</td>
<td>101.6</td>
<td>19.8</td>
<td>103.2</td>
<td>20.2</td>
<td>103.2</td>
</tr>
<tr>
<td>101–250 books</td>
<td>11.7</td>
<td>107.1</td>
<td>12.2</td>
<td>108.1</td>
<td>14.1</td>
<td>106.4</td>
</tr>
<tr>
<td>&gt;250 books</td>
<td>7.7</td>
<td>110.7</td>
<td>8.0</td>
<td>112.7</td>
<td>10.3</td>
<td>112.9</td>
</tr>
</tbody>
</table>

Our findings support other research (e.g., Cosgrove et al., 2000) showing that both demographic characteristics and educational processes in the home are important factors in reading. While factors such as parental education and socioeconomic status are important, the home environment (e.g., reading to children at home, having plenty of books in the home) is also important.

Chapter Highlights

- Pupils living in a lone-parent household have significantly lower average DSRT scores than their classmates.
- As family size increases, achievement scores tend to decrease.
- Pupils who live in households where no parent is employed tend to have lower DSRT scores.
- Being covered by the medical card, or having a parent who was an early school leaver, is associated with lower DSRT scores.
- Resources in the home are related to achievement. Pupils who have ready access at home to books, to an atlas, a dictionary or a computer have higher achievement scores than those who do not.
- Pupils from homes where someone is a member of a public library and/or where parents regularly read newspapers or books average higher DSRT scores.
- Higher scores are associated with being regularly read to before starting school, and, while in the Infants classes, regularly reading to someone at home.
Chapter 5
Classroom and Teacher Characteristics

This chapter describes some of the characteristics of teachers and of the classroom environment.

Teacher Characteristics

Most teachers were female and most pupils (up to 87%) were taught by a female teacher. Male teachers were most likely to teach boys and or Sixth class pupils. First class pupils’ teachers averaged 11 years teaching experience, compared to 10 years and 14 years for Third and Sixth classes, respectively.

A quarter of First class pupils were taught by teachers employed on a temporary or substitute basis, compared to 15% of Third class and 7% of Sixth class pupils. Thirteen percent of First class pupils, 9% of Third, and 8% of Sixth class pupils were taught by teachers who lacked a basic teaching qualification.

Class Size

Table 5.1 shows that the average number of pupils in a classroom ranged from 21.4 in First class to 24.2 in Third. Generally, multigrade classrooms had marginally fewer pupils than single grade classrooms. The exception was Sixth class, but as only 4% of Sixth class pupils were in multigrade classes, reliable conclusions cannot be drawn.

Table 5.1: Percentages and mean number of pupils in single-grade and multigrade classrooms

<table>
<thead>
<tr>
<th></th>
<th>1st class (N=2131)</th>
<th>3rd class (N=1834)</th>
<th>6th class (N=1952)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% pupils</td>
<td>88.9</td>
<td>84.9</td>
<td>96.0</td>
</tr>
<tr>
<td>Class size</td>
<td>21.6</td>
<td>24.4</td>
<td>24.2</td>
</tr>
<tr>
<td>Single-grade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% pupils</td>
<td>11.1</td>
<td>15.1</td>
<td>4.0</td>
</tr>
<tr>
<td>Class size</td>
<td>20.1</td>
<td>23.4</td>
<td>17.4</td>
</tr>
<tr>
<td>Multigrade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>21.4</td>
<td>24.2</td>
<td>23.9</td>
</tr>
</tbody>
</table>

Teaching English

Teachers spent approximately one hour per day teaching English, (Table 5.2). An hour is more than the minimum time suggested in primary school curriculum guidelines, but less than what could be allocated if discretionary curriculum time were allocated solely to English or to reading.
The amount of time allocated to teaching English and the amount of instruction time are quite different. Approximately a quarter of English lesson time was spent on classroom management, leaving around 45 minutes of instruction time. As a minority of lesson time was allocated to teaching reading, the average daily instruction time for reading ranges from 20 minutes (First class) to 16 minutes (Sixth class).

### Table 5.2: Number of minutes per day allocated to English lessons, and time spent on actual English reading instruction

<table>
<thead>
<tr>
<th>No. of minutes...</th>
<th>1st class</th>
<th>3rd class</th>
<th>6th class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per English lesson</td>
<td>65.5</td>
<td>57.9</td>
<td>59.4</td>
</tr>
<tr>
<td>Reading instruction</td>
<td>19.6</td>
<td>17.9</td>
<td>16.1</td>
</tr>
</tbody>
</table>

Teachers reported that a majority of English instruction time was spent on whole class teaching (Figure 5.1). The proportion of time allocated to whole class teaching was largest at Sixth class and smallest at First. Indeed, 11% of Sixth class pupils were only taught by whole class teaching methods. In a related vein, Sixth class pupils had the lowest proportion of time (9%) devoted to individual instruction.

### Figure 5.1: Proportion of time allocated to whole class, small group, and individual teaching of English: First and Sixth class

#### Teachers’ Views on School Climate

Teachers were asked about issues relating to school ‘climate’, or atmosphere (e.g., their perceptions of management efficiency, collegiality, disciplinary environment, parental involvement and attitudes towards innovation and professional development). Teachers were generally satisfied with the climate in their school, particularly in terms of relationships with colleagues.

For example, most teachers felt that there was a strong sense of community in their school, and that they could ask for advice if they had a problem with their work. Most also disagreed that there
was a negative attitude to new ideas in their school. However, up to 23% agreed that school resources were not used effectively, and up to 28% agreed that the school disciplinary policy was not applied consistently.

### Teacher / Classroom Characteristics Related to Achievement

The first half of this chapter described teacher and classroom characteristics: this section relates these characteristics to DSRT scores.

No significant relationship was found between pupils’ DSRT scores and teacher gender or teacher employment status (temporary/substitute or permanent). Also, although pupils taught by unqualified teachers had lower average scores than pupils taught by qualified teachers, these differences were not statistically significant at any grade level.

A series of correlations was carried out between pupils’ scores on the DSRT and various aspects of the classroom environment. Statistically significant correlations are shown in bold in Table 5.3. You should note that although many of the correlations are in bold, the relationships are generally quite weak.

Across all grade levels, the number of years teachers had spent teaching, the number of books in the classroom library, and the percentage of English instruction time devoted to whole-class teaching were positively correlated with achievement. In other words, as each of these increased, test scores tended to increase.

The percentages of time devoted to small group and individual teaching have weak negative correlations with achievement (i.e., the more teachers engaged in small group and individual teaching, the poorer test scores tended to be). Of course, this does not necessarily mean that these activities cause poorer scores: teachers with many poor readers in their class are probably more likely to use such methods.

Longer English lessons were associated with lower test scores, possibly because teachers spent more time teaching English to pupils with poor reading skills. In contrast, as the percentage of English lessons spent on instruction (i.e., excluding classroom management) increased, so did achievement. In First and Sixth classes, as the number of minutes per day allocated to reading increased, test scores tended to decrease. However, relationship more or less disappears if reading instruction time is considered.

Lower scores on the school ‘climate’ scale (indicating greater satisfaction among teachers with the school climate) were linked to
higher DSRT scores. Thus, greater teacher satisfaction with climate is associated with slightly higher pupil achievement scores.

Finally, in First and Sixth classes, pupils in larger classes tended to perform better than did pupils in smaller classes. However, this may be because class sizes tend to be smaller in the most disadvantaged schools.

### Table 5.3: Correlations between pupil achievement and selected class-level variables

<table>
<thead>
<tr>
<th></th>
<th>1st class</th>
<th>3rd class</th>
<th>6th class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching experience</td>
<td>.14</td>
<td>.13</td>
<td>.10</td>
</tr>
<tr>
<td>Number of books in class library</td>
<td>.12</td>
<td>-.09</td>
<td>.06</td>
</tr>
<tr>
<td>% whole class teaching</td>
<td>.16</td>
<td>.15</td>
<td>.08</td>
</tr>
<tr>
<td>% small group teaching</td>
<td>-.14</td>
<td>-.11</td>
<td>-.07</td>
</tr>
<tr>
<td>% individual teaching</td>
<td>-.03</td>
<td>-.12</td>
<td>-.05</td>
</tr>
<tr>
<td>Minutes per English lesson</td>
<td>-.11</td>
<td>-.07</td>
<td>-.05</td>
</tr>
<tr>
<td>% lesson time on instruction</td>
<td>.05</td>
<td>.05</td>
<td>.06</td>
</tr>
<tr>
<td>Minutes per reading lesson</td>
<td>-.11</td>
<td>.01</td>
<td>-.07</td>
</tr>
<tr>
<td>Minutes reading instruction time</td>
<td>-.08</td>
<td>.01</td>
<td>-.04</td>
</tr>
<tr>
<td>School climate scale</td>
<td>-.10</td>
<td>-.07</td>
<td>-.04</td>
</tr>
<tr>
<td>Number of pupils in classroom</td>
<td>.15</td>
<td>.03</td>
<td>.09</td>
</tr>
</tbody>
</table>

Significant correlations shown in bold

### Chapter Highlights

First class pupils are those most likely to be taught by an unqualified (13% of pupils) or substitute/temporary (25%) teacher.

Pupil achievement does not vary significantly with employment or training status of teachers.

Approximately an hour a day is allocated to teaching English, far less than research suggests is necessary for very disadvantaged pupils.

Average daily instruction time for reading is 16 to 20 minutes.

Whole class teaching is the predominant method of teaching English lessons (up to 71% of time, for Sixth class pupils).

More than one in ten Sixth class pupils experience only whole class teaching.

Most teachers are satisfied with the ‘climate’ in their school, particularly in terms of a sense of community. Fewer are satisfied with school resource usage, or believe that the school disciplinary policy is consistently applied.
Chapter 6
Learning-Support Teachers

In total, 94% of learning-support teachers (representing 88 schools) returned completed questionnaires. Most learning-support teachers worked with pupils across a number of grade levels, while a small number worked in more than one school.

Teacher Characteristics

Eighty percent of learning-support teachers were female, and most were very experienced (averaging 24 years teaching). The average amount of time they had spent in learning support was six years. Ninety percent worked in one school only, while 8% worked in two schools.

Almost half (48%) had never completed a recognized diploma course in remedial education or learning support. Most had attended in-career development (ICD) days since the start of the 2002/03 school year, although 9% had not attended any ICD.

The Work of Learning-Support Teachers

Teachers’ average caseload was 32 pupils. In terms of curriculum areas, most of their time (89%) was spent providing learning-support in English, with just over 10% of time devoted to Mathematics. However, these data may under-represent the proportion of time allocated to subjects other than English, as only those offering learning-support in English were invited to participate in the current survey.

In a typical day, 69% of respondents’ time was spent teaching pupils with learning difficulties in English, outside their own classroom (typically in a learning-support room). Two percent of time was spent teaching pupils in their own classroom, and 5% was spent liaising with class teachers. Half of those surveyed had formal meetings with class teachers once a term, and 70% had informal meetings at least once a week.

The Learning-Support Guidelines

Most respondents (83%) described the Department of Education and Science’s (2000) Learning-Support Guidelines as very useful or somewhat useful to them, but only 65% felt that teachers in their school were sufficiently familiar with the Guidelines.
Approximately half indicated that guidelines on collaborating with class teachers, and on consulting and collaborating with parents, needed modification, as did guidelines relating to the identification and selection of pupils.

**Obstacles to Provision**

Generally, respondents felt that their school was adequately served in terms of most material resources for learning support. However, large minorities felt that their work was ‘very much’ impeded by a lack of or inadequate software packages for teaching comprehension (19%) and writing (22%).

Although reasonably satisfied with material resources, many saw other factors as obstacles to their work. For example, over one-third felt that the following were ‘very much’ an obstacle to their work: lack of support from at least some parents; excessively large caseloads; insufficient in-career development; and lack of time for preparation or planning.

**Enhancing Provision**

In response to open-ended questions, most learning-support teachers offered suggestions for enhancing the effectiveness of learning-support programmes in English in schools designated as disadvantaged, and in schools generally. The most common suggestion (17% of respondents) was the provision of more human resources (e.g., additional learning-support teachers, speech and language therapists, resource teachers, and additional staff to deal with administration, so that learning-support teachers could be released to teach).

Just over 16% of those surveyed provided suggestions pertaining to ICD (typically, that more frequent and more intensive ICD was needed). A further 16% mentioned allocation of time during the school day, including difficulties in meeting class teachers, and the need for more time for assessing, monitoring and record keeping.

**Chapter Highlights**

- Learning-support teachers have an average caseload of 32 pupils.
- Almost half of learning-support teachers have not completed a recognized one-year course in remedial education/learning support.
- 69% of learning-support teachers’ time is spent working with pupils outside their own classroom, and 2% is spent with pupils in their own classroom.
- Shortage of material resources is perceived to be less of a problem than large caseloads and lack of support from some parents.
- Half feel that the sections of the Learning-Support Guidelines relating to consulting with teachers and parents need modification.
Chapter 7
School Characteristics

This chapter describes some of the characteristics of schools that took part in the survey.

Enrolment

Average school size was 202 pupils, although there was considerable variation, ranging from only 12 pupils in the smallest school to 774 pupils in the largest. Average attendance for all schools surveyed was 89%\(^1\), ranging from 70% to 95%.

On average, 15% of pupils received help from a learning-support teacher. If all forms of additional support (e.g., learning support, resource or language-support teaching) are considered, 23% of pupils received some form of additional support. Seventy-five percent of pupils qualified for the *School Books for Needy Pupils* grant (compared to 32% nationally). Moreover, as described in Chapter 4, large proportions of pupils were covered by the medical card, had a parent who had left school without any formal qualifications, or were from a family with a low ISEI (socioeconomic status) score.

Schools' socioeconomic characteristics tended to be highly related. For example, schools with many pupils from a low socioeconomic status family also tended to have many pupils qualifying for the books grant. Therefore, a composite measure (a school deprivation score) was created, based on the four socioeconomic variables (medical card, ISEI, books grant, and early school leaver parents).

School Characteristics Related to Achievement

Table 7.1 shows correlations between some school-level variables and achievement for Third class pupils. The strongest relationship found was between a school’s deprivation score and pupil achievement, indicating that achievement tends to be lower in very deprived schools. There was also a moderate relationship between average test scores in a school and the percentage of pupils in receipt of, or in need of, learning-support, and the percentage in

\[^{1}\text{This is slightly lower than the attendance rates reported in Chapter 3, which were based on pupil attendance rates for January-March 2003, whereas the information above is school-level annual attendance.}\]
need of psychological assessment. For example, as the percentage of pupils needing psychological assessment increased, there tended to be a decrease in average achievement.

Average test scores tended to increase as school-level attendance rates, the proportion of girls in a school, and attendance rates at parent-teacher meetings increased. In contrast, increases in teacher turnover and in the percentage of unqualified teachers in a school were associated with decreased achievement scores. However, the relationship between unqualified teachers and achievement is very weak.

In sum, pupil scores on the reading test were lowest in schools that were very socioeconomically deprived, with poor attendance rates, large percentages of pupils in need of additional support, a mainly male enrolment, poor attendance at parent-teacher meetings, a high rate of teacher turnover and a large proportion of unqualified staff. It must be noted though, that most of these variables are inter-related, and all are significantly related to the school deprivation score.

| **Table 7.1: Correlations between selected school-level variables and Third class pupils’ achievement scores** |
|-----------------|------------------|
|                 | *r*              |
| Deprivation score | -.38             |
| % in receipt of learning-support | -.20             |
| % in need of learning-support | -.24             |
| % in need of psych. assessment | -.21             |
| School-level attendance | .24             |
| % of pupils = girls | .14              |
| % attendance at parent-teacher meetings | .17              |
| % teacher turnover | -.14             |
| % unqualified teachers | -.08             |

Significant correlations shown in bold

**Chapter Highlights**

The schools surveyed have large proportions of disadvantaged pupils.
The average attendance rate is 89%, with considerable variation between schools.
On average, 23% of pupils in each school are in receipt of some form of extra support for learning.
School-level characteristics, such as average attendance rates, teacher turnover, and the proportion of pupils in need of or in receipt of additional support, are related to achievement.
However, each of these variables is significantly correlated with the school deprivation score, which shows the strongest correlation with achievement.
The relationship between pupil reading achievement and a number of pupil, home, school and classroom variables have been described separately in the preceding chapters. However, many of these variables are inter-related. Further, an apparent relationship between a variable and achievement may occur because both are related to a third variable. In this chapter, the relationships between reading achievement and a range of variables are examined simultaneously, using a procedure called multilevel modelling. Multilevel models distinguish between the effects of variables at different levels (e.g., school-level and pupil-level characteristics). Due to time constraints, a model was developed only for Third class pupil achievement.

The final model included one school-level variable – the school deprivation score described in Chapter 7 – and a number of pupil-level variables. There were also interactions between the school deprivation score and pupil gender, and between reading before formal schooling and attendance at school.

**School Characteristics**

The only school-level variable retained in the final model was the school deprivation score, underlining the importance of a school’s socioeconomic composition for pupil achievement. The model suggested that a school’s overall socioeconomic composition can influence the performance of individual pupils within that school, even after a pupil’s own socioeconomic status is taken into account. It should be remembered that all schools in the survey were designated disadvantaged schools. As the model found an effect for school-level socioeconomic composition (deprivation), we can conclude that there is measurable variation in achievement between designated disadvantaged schools that relates to the degree of disadvantage found.

The school deprivation score also interacted with pupil gender. This indicates that, allowing for the other variables, boys in the most disadvantaged schools are particularly at risk of low reading achievement, relative to girls in similarly disadvantaged schools, and to boys in less disadvantaged schools.

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‡ Based on Chapter 11 (authored by Nick Sofroniou) in Eivers et al. (2004).
Family and Home Environment Factors

After adjusting for other relevant school- and pupil-level variables, pupils whose families were covered by the medical card scheme scored lower than pupils whose families were not covered. Family size was also an important contributor to achievement. For example, pupils from larger families (defined as pupils who had 4 or more siblings) scored lower than pupils with one sibling, when other variables are taken into account.

Achievement tended to be much lower amongst pupils whose homes had few books. For example, adjusting for other variables, pupils with no books in their home had predicted reading achievement scores that are almost 12 points lower than those with more than 250 books in their home.

Another characteristic of the home environment identified as related to reading achievement was the frequency with which children were read to at home before they started formal schooling. This can be interpreted in terms of its interaction with school attendance. Those with low attendance who were rarely read to achieve scores that are substantially lower than those with low attendance who were read to at home every day before schooling began.

<table>
<thead>
<tr>
<th>Chapter Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td>A multilevel model of reading achievement was developed for Third class. Higher scores on the DSRT are associated with the following school- and pupil-level variables:</td>
</tr>
<tr>
<td>School-level: Higher than average socioeconomic composition</td>
</tr>
<tr>
<td>Pupil-level: Female</td>
</tr>
<tr>
<td>Family not covered by medical card</td>
</tr>
<tr>
<td>High rate of attendance at school</td>
</tr>
<tr>
<td>Being regularly read to before enrolling in school</td>
</tr>
<tr>
<td>Large number of books in the home</td>
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<tr>
<td>Less than 4 siblings</td>
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<tr>
<td>Interactions: Female by Higher than average school-level SES composition</td>
</tr>
<tr>
<td>High attendance rate by Being regularly read to before enrolling in school</td>
</tr>
<tr>
<td>The effect for school-level SES indicates significant variation between designated schools in terms of the extent of disadvantage found.</td>
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</table>
Chapter 9
Addressing Literacy Difficulties

This chapter proposes a number of ways in which the literacy problems of pupils in designated disadvantaged schools might be addressed. As the survey was conducted on behalf of the Department of Education and Science, many suggestions focus on the work of schools and teachers. However, not all responsibility for improving reading standards rests with the educational system: the wider context of educational disadvantage should not be ignored. Further, the solutions proposed are designed to complement each other. None in isolation is likely to result in wholesale change.

Adoption of Broader Strategy

Schools alone cannot redress educational disadvantage. Integrated family-support programmes, with the full involvement of schools and with an increased emphasis on educational needs, should be more widely available.

New NAPS Target

The 2001 NAPS target should be replaced by a new 10-year target to halve the proportion of pupils in designated disadvantaged schools who score at or below the 10th percentile on a specified standardised test. It should be supplemented by short-term system- and school-level targets, and targets for average and high-achieving pupils.

A Stronger Focus on Literacy

Irish schemes to redress educational disadvantage have (thus far) had little impact on pupils’ literacy. One reason may be that literacy is not given the same practical priority that it is given in successful schemes in other countries. For example, the Success for All programme (Slavin & Madden, 2003) includes 90 minutes of daily reading instruction, while Shanahan (2001) argues that very disadvantaged schools should allocate two hours a day to English.

1 ‘System’ means that the recommendation is directed the Department of Education and Science and its agencies (e.g., NCCA, NEPS, NEWB), or other government departments.
Addressing Literacy Difficulties

In Ireland, participation in programmes designed to tackle disadvantage has not led to such a significant increase in the time allocated to teaching English. Indeed, many of the schools in the Literacy Survey were involved in a number of programmes. However, only an hour a day was spent in English lessons. This is more than the minimum time suggested in the primary school curriculum, but still inadequate, particularly as only 16 to 20 minutes was spent on actual reading instruction.

We suggest that current curriculum guidelines on time allocation are not appropriate for very disadvantaged schools. Such schools should allocate at least 90 minutes a day to the classroom teaching of English. This should be supported by a substantive school-wide focus on language and literacy that is considerably stronger than that found in current intervention programmes.

**Whole-School Approaches**

Approximately one-quarter of pupils in our study were receiving additional support, with many more described as needing such support. We believe that a ‘withdrawal’ model of additional support (pupils taken out of classes individually or in groups of two or three) is inappropriate in schools where large proportions of pupils need assistance. Other models of provision should be considered, and very disadvantaged schools should be helped to re-structure the provision of reading instruction and support services.

Amongst the changes that should be considered are: cross-grade reading groups of pupils with similar levels of reading achievement; reading groups assigned to class and support teachers on a rotating basis; and, increased use of volunteer tutors from the wider community (e.g., retirees, third-level students).

Schools with large numbers of lower-achieving pupils should be assigned literacy co-ordinators, who would help develop and implement activities to improve reading standards. Substitute cover should be supplied so that teachers can work with the co-ordinator and with one another without loss of instructional time for pupils.

**Pre-Service Training / In-Career Development (ICD)**

The Literacy Survey results revealed three main issues in relation to teacher training. First, pre-service training in relation to the teaching of reading is not fully meeting the needs of teachers or pupils. Secondly, ICD on identifying and dealing with reading difficulties is rated as of little use by a large minority of class teachers. Thirdly, the increasing curricular emphasis on oral language is not adequately supported by teacher training.
We recommend that pre-service training have a greater focus on reading development, with a particular emphasis on teaching educationally disadvantaged pupils. Further, teachers in designated disadvantaged schools should participate in ongoing school-based ICD on the teaching of oral language, reading and writing. This should emphasise the processes underlying language and literacy, and allow for reflection on teaching approaches and practices.

**Assessment and Feedback**

Teachers reported that the results of standardised tests did not have a major effect on their teaching practices. This may be because such tests are typically administered at the end of the school year, and results are seen to be out-of-date by the start of the next academic year. We recommend that standardised tests have norms appropriate to the beginning and end of the school year. Further, the inclusion of some diagnostic or descriptive information would be beneficial.

Research shows that the use of formative assessment can have a very positive effect on the reading achievement of low-achieving pupils (see, for example, Black & Wiliam, 1998). Therefore, school policies on assessment should include a strong focus on formative assessment of oral language, reading and writing, supported by a centrally-developed practical framework for teachers, with associated ICD.

The survey revealed a considerable gulf between the opinions of teachers and those of pupils and parents regarding current pupil achievements and future academic expectations. We suggest that this is because feedback supplied by teachers can overemphasize praise for effort, while not fully apprising parents or pupils of areas of difficulty. We believe that the outcomes of formative assessments should be used to provide detailed feedback to pupils and parents about pupils’ strengths and weaknesses.

**Early Intervention**

Provision of early childhood education should be expanded, using a graded approach that takes into account the varying degrees of disadvantage. For very disadvantaged children, an intensive, year-round and full-day programme should be considered, while less intensive pre-schools and playgroups should be readily accessible in all disadvantaged areas.
In common with many other studies (e.g., Kain & O’Brien, 1999), the Literacy Survey found an association between poor attendance and low achievement, including some evidence that a high attendance rate could, in certain circumstances, compensate for the effects of not being read to prior to formal schooling.

In its first year in operation, the National Educational Welfare Board (NEWB) prioritised pupils aged 10 to 16 years. This may mean that attendance problems during the critical years for language development and reading acquisition escape attention. Therefore, we propose that schools be supported in targeting pupils under 6 years of age, and that the NEWB target pupils identified as vulnerable as soon as they become 6, rather than waiting for a pattern of poor attendance to become established, post age 6.

Secondly, the NEWB should develop models of best practice on within-school methods of promoting attendance and dealing with persistent non-attenders, that schools can adapt to local needs. Further, the NEWB should strive to raise public awareness of the importance of regular school attendance, including the effects of attendance on achievement. Finally, the value of NEWB activities should be validated by research.

We recommend two changes to how schools and pupils are targeted for additional resources. First, disadvantaged schools are currently identified by variables such as the proportion of the enrolment covered by the medical card, or living in Local Authority housing. Based on evidence from the current study, the number of boys in a school, and the number of pupils with 4 or more siblings, should be considered as additional indicators to identify disadvantaged schools.

Second, a school’s socioeconomic composition, while generally stable, can change significantly if local factors change. This suggests that the appropriateness of disadvantaged status being permanently maintained, once assigned, is questionable. Schools’ socioeconomic composition should be regularly reviewed, preferably using the proposed Primary Pupil Database. Up-to-date information should be used when assigning additional resources.

The results of the Literacy Survey indicate that teachers’ educational expectations for pupils were often quite low. Many teachers will feel that such expectations are not low, but simply a realistic and accurate reflection of what is likely to happen to their
pupils. The issue, however, is not about the accuracy of teachers’ views, but with the effects that low expectations may have on pupils’ reading achievement.

While evidence from elsewhere indicates that raising teacher expectations can lead to raised pupil achievement, raising teacher expectations has not been a feature of any Irish intervention. Indeed, some argue that a side-effect of the focus on educational disadvantage, and on factors such as the inter-generational effects of disadvantage, may have led to greater pessimism amongst Irish teachers about what pupils can achieve (e.g., Archer & Shortt, 2003; Archer & Weir, 2004). Thus, strategies to promote high teacher expectations of pupils’ achievement should be part of strategies to deal with disadvantage.

Qualified Teaching Staff

We did not find significant differences in achievement between pupils taught by unqualified or qualified teachers, and found only a very weak relationship between the proportion of unqualified teachers in a school and average achievement. However, we did not track pupils to see if they had ever been taught by unqualified teachers, and if so, for how long. Doing so might have revealed a positive relationship between teacher qualification and pupil achievement, as has been found in studies from the US (e.g., Darling-Hammond, 2000).

On average, 5% of teachers were unqualified, but 13% of First class pupils were taught by an unqualified teacher. If it is taken as a given that it is better for a pupil to be taught by a qualified rather than an unqualified teacher, then these percentages suggest that unqualified teachers present both a system and a within-school management issue.

At the system-level, consideration should be given to implementing the recommendations of the Educational Disadvantage Committee (2004) in relation to teacher supply in the most disadvantaged schools. At the school-level, priority should be given to the Junior classes (the crucial stages for acquiring and developing reading skills) when assigning qualified teachers.

The Home Environment

Homes where educational resources (such as books) are available, where someone is a member of a public library, where parents regularly read books or newspapers, and where parents read to young children are positively associated with children’s reading achievement. The association holds, even when account is taken of such factors as parental education and SES. As it is likely that many parents do not realise the potential benefits of a literacy-rich
home environment, an information campaign should be initiated to apprise families of these benefits.

There was a strong link between the number of books in a pupil’s home and his or her reading achievement. However, close to a quarter of pupils came from homes with less than 11 non-school books. To redress this deficit, all designated schools with Junior classes should be allocated funding to give starter packs of books to their incoming Junior Infants classes. A book voucher scheme should be considered for pupils in other classes to promote the purchase of books for leisure reading.

Parent-School Interaction

While endorsing the work carried out by HSCL co-ordinators, there is evidence that many parents of the most disadvantaged pupils remain uninvolved in their child’s school-related activities. Further measures need to be taken to engage with this group, including regularly scheduling parent activities outside of normal working hours, occasionally using non-school locations, and providing childcare or welcoming children to activities.

More generally, schools that are seen as part of the wider community will probably have less difficulty in fostering parental involvement. While such a characteristic is difficult to define operationally, making school facilities available to the community after school hours is one example of how schools can be perceived as part of a community.


